REPORT RESUMES

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IMPROVING INSTRUCTION--BUDGETING YOUR AUDIO-VISUAL PROGRAM.
BY- RUGG, K.C.
INDIANA UNIV., BLOOMINGTON
REPORT NUMBER NDEA-VIIB-002 PUB DATE 60
EDRS PRICE MF-$0.18 HC-$3.64 91P.

DESCRIPTORS- INSTRUCTIONAL TECHNOLOGY, AUDIOVISUAL PROGRAMS, *AUDIOVISUAL INSTRUCTION, *NATIONAL SURVEYS, CASE STUDIES (EDUCATION), BLOOMINGTON, INDIANA

AN ATTEMPT WAS MADE TO LOCATE AND DESCRIBE SUCCESSFUL AUDIOVISUAL PROGRAMS IN THE UNITED STATES THAT WERE IMPROVING INSTRUCTION IN THEIR RESPECTIVE SCHOOL SYSTEMS. AFTER A PRELIMINARY SURVEY, THE INVESTIGATOR SELECTED 28 SCHOOL SYSTEMS FOR INDIVIDUAL CASE STUDY. SELECTION WAS BASED ON GEOGRAPHICAL LOCATION, SIZE OF SCHOOL SYSTEM, WILLINGNESS TO BE INCLUDED ON AN ANONYMOUS BASIS, TYPE OF SCHOOL SYSTEM (CITY, COUNTY, OR SUBURBAN), PER PUPIL EXPENDITURE FOR THE AUDIOVISUAL PROGRAM EXCLUDING SALARIES, AND COMPLETENESS OF NECESSARY INFORMATION. EACH AUDIOVISUAL DIRECTOR OF THE 28 SCHOOL SYSTEMS WAS ASKED TO PROVIDE FIVE KINDS OF INFORMATION--(1) SCOPE OF THE PROGRAM AND SERVICES OFFERED, (2) RELATIONSHIP OF THE DIRECTOR TO OTHER SCHOOL SYSTEM PERSONNEL, (3) UNIQUENESS OF THE PROGRAM BASED ON THE LOCAL SITUATION, (4) PERSONNEL NECESSARY TO CARRY THE PROGRAM FORWARD, AND (5) THE BUDGET (DELINEATED SO AS TO BE MEANINGFUL) NECESSARY FOR THE PROGRAM. DISTINCTIVE FEATURES OF MANY OF THE 28 PROGRAMS WERE EMPHASIZED IN THE INDIVIDUAL CASE STUDY DESCRIPTIONS IN THIS REPORT. THE REPORT DID NOT ATTEMPT TO PROVIDE FORMULAS OR DICTATE WHAT SHOULD BE SPENT ON NEW AUDIOVISUAL PROGRAMS. IT MERELY DESCRIBED WHAT EDUCATORS WERE DOING IN THE FIELD OF AUDIOVISUAL MEDIA, TO PROVIDE SCHOOL ADMINISTRATORS WITH USEFUL INFORMATION FOR AUDIOVISUAL PROGRAM PLANNING AND SUPERVISING. (JH)

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IMPROVING INSTRUCTION

Budgeting
Your
Audio Visual
Program

IMPROVING INSTRUCTION

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Your
Audio-Visual
Program

Prepared by
K. C. Rugg
Indiana University
for the
Audio-Visual Council on Public Information

This publication was developed pursuant to a
contract with the U. S. Office of Education

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Single copies of this publication may be obtained free of charge from the Indiana University Audio-Visual Center while the supply lasts.

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FOREWORD

Like most other components of educational progress, the wide acceptance of audio-visual materials as practical and effective teaching tools brings problems for school administration. How much should be budgeted for a good audio-visual program? What is a good program? What results can be expected from a well-planned and adequately financed program? These and other questions arise as the administrator seeks to obtain for his school the benefits inherent in these powerful new educational media.

This report is an initial effort to provide some of the answers through an analysis of 28 audio-visual programs in school systems of various sizes and in all parts of the country. It does not attempt to provide formulas, to dictate what should be spent, or to determine what a program should include; it merely sets forth what others are doing.

We believe that school administrators will find the practices reported in this publication to be very useful in planning and supervising audio-visual programs in their respective school systems. We commend it to you for your careful consideration.

Finis E. Engleman, Executive Secretary
American Association of School Administrators, NEA

Howard A. Dawson, Executive Secretary
Department of Rural Education, NEA

INTRODUCTION

The most important task of the school superintendent is that of improving instruction. He does this in many ways, such as helping to build a better school building, securing a more adequate salary schedule, and raising professional standards of teachers. Equally important is providing teachers ready access to audio-visual instructional materials and equipment and helping them use the materials effectively in the classroom and laboratory with their pupils.

Learning involves stimulating all senses, such as seeing, hearing, and feeling. The term "audio-visual" is used to describe those instructional materials and experiences which do not depend primarily on the printed word but appeal to one or more of the senses. Neither does the term "audio-visual" refer to a specific subject-matter area separate from the several academic fields, but rather it cuts across all areas of instruction. Today, there are over 40 different kinds of audio-visual materials and experiences including: still pictures, both projected and non-projected; motion pictures and radio and television programs; mock-ups, models, and real objects; demonstrations, exhibits, and field trips; disc and tape recordings; and flannelboards, globes, maps, and charts.

Audio-visual materials have proven themselves useful in many fields other than education, including business, religion, and government. For example, American business leaders consider these materials to be an integral part of the communication process in every facet of their business operations, including training, public relations, and research and development. It has been reliably reported that last year alone business and industry spent $150 million for films, filmstrips, and other audio-visual items—more than five times as much as was spent for comparable items in the field of education.

In enacting the National Defense Education Act of 1958, members of the United States Congress recognized the importance of modern instructional materials and initiated in a positive action program the concept that the security of the nation requires the fullest development of the mental resources and technical skills of young men and women. This act specifically includes provision for funds that enable local school units to acquire audio-visual equipment and materials for the purpose of strengthening the instructional programs in the areas of science, mathematics, and modern foreign languages. The Act also provides funds for encouraging the development of systematic audio-visual education programs, the training of persons for competent use of audio-visual materials, and the dissemination of information about modern educational media.

The good teacher of today explores every possible approach to effective teaching and uses those materials that make school experiences more meaningful to children. Audio-visual instructional materials not only contribute to children's understanding but also are essential in a good learning environment to meet individual differences inherent in any school population.

The practice of grouping together those activities that are similar in function is an accepted basic principle of organization. The function of the audio-visual program is to provide professional services to teachers through coordinating and administering activities relative to the production, selection, and utilization of instructional materials. These activities should be grouped and organized under a trained, competent person so that the audio-visual program can make its maximum contribution to the over-all school objective of improving instruction.

As the individual responsible for improving the instructional program, the superintendent more than any other member of the professional staff is concerned with the financing necessary for the realization of his major objective. The audio-visual program, being one important facet of the instructional program, must receive its share of financial support. The support must be reflected in personnel, equipment, materials, and facilities that will enable the audio-visual program to make its maximum contribution.

Recognizing that the school superintendent is ever aware of his primary objective—the improvement of instruction—the members of the Audio-Visual Council on Public Information, two years ago, developed plans for a study which they felt would make a valuable contribution to this important objective. The Audio-Visual Council on Public Information is composed of representatives, acting independently, from ten national organizations.[1] These representatives are mutually concerned with the dissemination of information relative to audio-visual communications media and the role these media can play in the improvement of instruction.

The study attempted to locate and describe successful audio-visual programs in the United States that are making valuable contributions to the improvement of instruction in their respective school systems. One hundred and sixty-five leaders in audio-visual education were asked to submit names of school systems in their state that were making this kind of contribution. One hundred and thirty-six, or 82 per cent, reported and named 610 such school systems. After a "weighting" factor had been applied, 371 school systems were asked to participate in the study by sending in their audio-visual budgets for analysis. Two hundred and seventy school systems, or 73 per cent, participated in this phase of the study.

Twenty-eight of the 270 school systems were selected to be included in this publication. Selection was based on geographical location; size of school system; willingness to be included in the publication anonymously; type of school system, such as city, county, or suburban; per pupil expenditure for the audio-visual program excluding salaries; and completeness of necessary information. Each audio-visual director was asked to provide five kinds of information: (1) scope of the program including services offered; (2) relationship of the director to other school system personnel; (3) uniqueness of the program based on the local situation; (4) personnel necessary to carry forward the program; and (5) the budget (delineated so as to be meaningful) necessary for the program.

These 28 audio-visual programs are presented as individual case studies. Distinctive features are emphasized in many of the case-study descriptions. This fact, plus the brevity called for, may lead the reader to assume that little similiarity exists in organizations or functions, but actually this is not true. While a degree of variation does exist, all audio-visual programs herein described have such fundamental common features as a full- or part-time professional director with clerical and technical assistants, a clearly understood function of assisting teachers to teach better through an in-service education program, a materials and equipment distribution service, and a specific budget within which to operate. For each of these common features, sound administrative principles and practices exist.

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[1] See page 9 for names of participating organizations.

No one knows better than the superintendent of schools that a good educational program costs money. Because the budget is the financial plan for the educational program, it is appropriate that this discussion of the newer media in today's schools, be focused on budgetary practices. The case studies indicate that the audio-visual budget is:

1. Planned cooperatively as a part of the total school system budget, based on the needs of the total instructional program;
2. Financed principally from tax funds;
3. Financed, for the most part, by regularly allocated funds, but occasionally supplemented by funds allocated to the school system budget;
4. Supplemented by bond funds for purchase of audio-visual equipment in new classroom buildings and new audio-visual centers;
5. Sometimes given financial support from the state;
6. Justified to the extent that it serves as a means for the improvement of instruction;
7. Enhanced through audio-visual demonstrations to school board and lay groups;
8. Soon to receive considerable financial support from the National Defense Education Act of 1958. No financial support will be noted in any of the budgets of the 28 case studies as they represent the financial support of the audio-visual program for the 1957-1958 and 1958-1959 school year.

The chief value of these case studies lies in their providing examples of on-going programs that include one or more strong elements which are essential to an adequate audio-visual program. None is offered as an example of a completely adequate program or as an example of one completely adaptable to any other specific situation. These case studies report programs as they exist today and are in process of further development. New developments in educational media will lead to an expansion of these programs.

Of greatest importance is the need for every school system to determine its own performance standards for an adequate audio-visual program. Only through this approach can a school staff develop a comprehensive system of providing instructional materials services and facilities that will meet their own needs in a satisfactory manner.

Audio-Visual Council on Public Information Membership

Department of Audio-Visual Instruction of the National Education Association

Educational Film Library Association

Association of Chief State School Audio-Visual Officers

American Association of School Librarians

National Association of Educational Broadcasters

Department of Audio-Visual and Broadcast Education of the National Council of Churches

University Film Producers Association

Association for Supervision and Curriculum Development of the National Education Association

Division of Audio-Visual Communications of the National University Extension Association

National Audio-Visual Association

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ANALYSIS OF CASE STUDIES

Case Study No.	Student Population	Total Budget Salaries Excluded	Per Pupil Expenditure	Type School System	Geographical Location*	AV Program Organized Years	Page No.
1	1,882	$ 9,086	$4.83	City	MS	2	15
2	2,400	11,099	4.62	Elementary	MS	4	17
3	2,500	13,188	5.27	Township High School	NCS	21	19
4	2,600	15,465	5.95	Suburban	MAS	2	21
5	4,200	5,308	1.26	City	SCS	13	23
6	4,500	16,611	3.69	City	NES	12	25
7	4,700	19,132	4.07	Consolidated	NCS	15	28
8	6,200	25,963	4.19	City-Urban	PS	14	31
9	7,231	23,833	3.30	County Elementary	MS	3	33
10	7,500	30,765	4.10	City	MAS	6	35
11	8,500	17,950	2.11	City	SAS	6	38
12	9,700	20,778	2.14	City-County	NCS	15	41
13	10,000	28,500	2.85	County	SAS	2	44
14	10,000	19,139	1.91	Unified District	MS	6	46
15	11,000	56,400	5.13	City	NCS	6	48
16	13,225	24,600	1.86	Elementary & Junior High	NCS	10	51
17	14,500	35,805	2.47	City	PS	12	55
18	19,000	45,536	2.40	City	SAS	12	58
19	20,000	24,191	1.21	City	SCS	8	60
20	21,500	39,295	1.83	City	MS	10	62
21	23,000	83,541	3.63	City	NCS	12	65
22	32,000	61,510	1.92	City	PS	20	69
23	40,000	96,000	2.40	City	MAS	27	71
24	56,000	116,150	2.07	City	SCS	15	74
25	84,987	121,589	1.43	County	PS	23	76
26	100,000	207,000	2.07	City	PS	30	79
27	147,000	134,191	.91	County	SAS	22	82
28	640,000	660,886	1.03	City	PS	27	86

* Key:

NES	New England States
MAS	Middle Atlantic States
SAS	South Atlantic States
NCS	North Central States
SCS	South Central States
MS	Mountain States
PS	Pacific States

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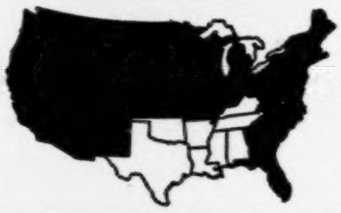
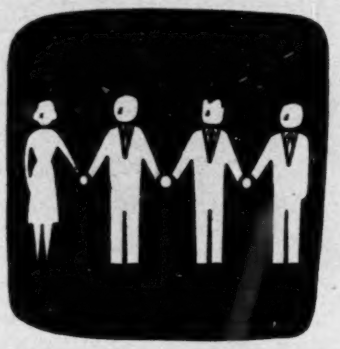
GEOGRAPHICAL LOCATIONS OF CASE STUDIES

Case Study Number	Student Population	Per Pupil Expenditure*		
8	6,200	$4.19		**PACIFIC STATES**
17	14,500	$2.47		
22	32,000	$1.92		
25	84,987	$1.43		
26	100,000	$2.07		
28	640,000	$1.03		
1	1,882	$4.83		**MOUNTAIN STATES**
2	2,400	$4.62		
9	7,231	$3.30		
14	10,000	$1.91		
20	21,500	$1.83		
3	2,500	$5.27		**NORTH CENTRAL STATES**
7	4,700	$4.07		
12	9,700	$2.14		
15	11,000	$5.13		
16	13,225	$1.86		
21	23,000	$3.63		
4	2,600	$5.95		**MIDDLE ATLANTIC STATES**
10	7,500	$4.10		
23	40,000	$2.40		
6	4,500	$3.69		**NEW ENGLAND STATES**
5	4,200	$1.26		**SOUTH CENTRAL STATES**
19	20,000	$1.21		
24	56,000	$2.07		
11	8,500	$2.11		**SOUTH ATLANTIC STATES**
13	10,000	$2.85		
18	19,000	$2.40		
27	147,000	$0.91		

* *Excluding Salaries*

CASE STUDY 1



Location: Mountain States
Population of City: 5,000
Type: City school system
Student Population: 1,882
Number of Teachers Served: 100
Number of Schools Served: 5
AV Program Organized: 2 years
Unusual Expenditures: Building up equipment inventory to satisfy needs

STAFF COOPERATION DETERMINES AUDIO-VISUAL PROGRAM OBJECTIVES BASED ON NEEDS

This small city school system established its audio-visual department only two years ago. The close cooperation of a full-time director with the superintendent, principals, and teachers has made it possible to determine the program's objectives in light of the present needs of the system and to establish the program on a firm base so that it can be broadened to include other services as teachers develop new insights and needs.

The primary purpose of the audio-visual program from its inception to the present is to improve the instructional and learning processes through a coordinated teaching materials approach to teaching units in all curriculum areas. To aid in attaining this objective, the director inaugurated an in-service teacher training program to develop desired concepts of the selection, preparation, and utilization of audio and visual materials. This program is carried out in the instructional materials preparation area and serves both teachers and students. The director acts as a consultant who helps teachers and students select and prepare the most appropriate and effective inexpensive material for each learning situation.

The facilities available allow for the mounting of small or large pictures and maps, production of inexpensive handmade visuals, lettering of captions or signs, coloring of various materials, production of handmade materials for projection, and preparation of simple photographic visuals of school activities for both school and community.

All newly assigned teachers in the system are instructed by the director in the operation of available equipment. This training is carried on in the several schools in the system. The director devotes full time to his audio-visual duties which include teaching one class in photography. School and community groups have reaped many benefits from this photographic class through visual enrichment of the activities and programs carried on throughout the year.

Activities of the center also include film production of athletic and dramatic events, photographic assistance to the department responsible for the high school newspaper and annual, film rentals, and consultation on all audio-visual problems with anyone desiring this service. Many of the photographic services are utilized by the administrative staff of the system to aid in interpreting the school program to the community.

A planned audio-visual center will be included in a new high school building now under construction. The work areas available will allow for an enlarged photographic laboratory and more extensive production of teaching materials through an expanded instructional materials preparation area, a preview room, a materials storage section, and an equipment maintenance area.

This city school system, located in an agricultural area, finances its audio-visual program from regularly allocated school tax funds. The audio-visual program is still in a period of rapid growth, consequently a large percentage of the budget is being devoted to capital expenditures for the equipment necessary to continue its successful operation. Excluding salaries, the per pupil expenditure for 1957-1958 was $4.83.

BUDGET SUMMARY

Category	**Expenditure**
Supplies	$ 432
Motion Pictures Produced for School Use	950
Educational Film Rentals	945
Filmstrip Purchases	127
Equipment Purchases	6,632
Photographic	
Cameras—4 x 5	
Tripods	
Enlargers	
Contact printers	
Light meters	
Motion picture camera—16mm, three lenses, motor drive, 400′ magazine	
Splicer and editor	
Dry mounting press	
Projection	
Combination 2 x 2 slide-filmstrip projectors	
Sound filmstrip projector	
Lantern slide projector	
Motion picture projectors—16mm	
Projection screens	
Record players	
Tape recorders	
Projection carts	
Grand Total	$9,086

CASE STUDY 2

Location: Mountain States
Population of City: 130,000
Type: Elementary school system
Student Population: 2,400
Number of Teachers Served: 94
Number of Schools Served: 4
AV Program Organized: 4 years
Unusual Expenditures: Completed light-control program for all classrooms

CENTER GAINS SUPPORT FOR PROGRAM THROUGH AUDIO-VISUAL DEMONSTRATIONS TO SCHOOL BOARD AND TO PTA's

To gain support for a continual broadening of the center's service objectives, this school system's instructional materials director demonstates to the school board and to parent-teacher groups the advantages of the numerous audio-visual materials used in the educational program. As a member of the superintendent's staff, the director takes an active part in curriculum development by making suggestions for the improvement of the total instructional program, by keeping the superintendent and other staff members informed of recent developments in the audio-visual field, and by serving as a consultant in the planning of new buildings. A significant facet of the effectiveness of the center's program is the cooperation achieved between the audio-visual center and the principals of individual schools for the improvement of instruction in the classroom.

The underlying philosophy of this instructional materials program is that of a service organization, maintained to provide the teacher with such professional services as the following:

1. Help in the selection of the most appropriate materials for specific needs
2. Aid in pre-planning to provide for the most effective utilization of audio-visual materials
3. Assistance in the preparation of handmade slides, charts, and other inexpensive teaching materials
4. Demonstrations in the proper use of audio-visual materials and equipment
5. Provision for consultations with staff members regarding the effective use of audio-visual materials
6. Classroom supervision, if desired by the teacher, in the use of audio and visual materials.

The director of this program is employed full time and, although a secretary is now available half time, it is planned to engage one on a full-time basis next year.

Budgeting plans for the science and mathematics programs under Title III of the National Defense Education Act of 1958 are presently underway with the formation of teacher committees to study the improvements necessary in these two subject areas.

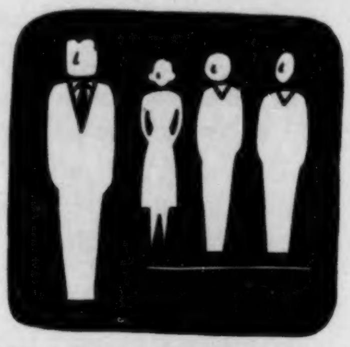
The financing of this school system's program comes from tax money apportioned to the audio-visual budget. Exclusive of salaries, $4.62 per pupil was expended in 1958-1959 for the audio-visual program.

BUDGET SUMMARY

Category	Expenditure	
Supplies		
Estimated @ $.50 per ADA to Film Coop	$1,175	
Service fees, insurance, and transportation	850	
Printing and office supplies	200	
Memberships, magazines, and books	100	$ 2,325
Travel		200
Repairs and Maintenance		350
Equipment and Materials Purchased		
Globes (12)	$ 427	
Maps (74 sets)	2,251	
Planetarium	90	
Models—body, eye, ear, and teeth (5)	294	
Sound films—16mm (15 reels)	900	
Filmstrips	500	
Flat pictures	350	
Educational transcriptions	150	
Recording tape	100	
Rental	372	5,434
Capital Outlay		
Tape recorders (4)	$ 700	
Record players (6)	360	
Filmstrip projectors (2)	160	
Wall screens (4)	120	
Public address system and transcription player	150	
New equipment	300	1,790
Darkening Classrooms (12)		1,000
Grand Total		$11,099

CASE STUDY 3

Location: North Central States
Population of City: 39,000
Type: Township high school
Student Population: 2,500
Number of Teachers Served: 126
Number of Schools Served: 1
AV Program Organized: 21 years
Unusual Expenditures: None



FULL-TIME CLERK AND PAID STUDENT ASSISTANTS HELP DIRECTOR

The audio-visual director of this township high school devotes only part time to the supervision of the program; however, the township budget provides for a full-time clerical person and paid student assistants. The full-time clerk takes care of the routine office work of typing, filing, and bookkeeping, thus allowing the director to devote more time to the supervision of the program and his required professional teaching activities. Student assistants deliver materials and equipment to teachers during the pre- and post-school hours and are paid from funds allocated to the audio-visual budget specifically for this purpose. Teachers are then able to expend their time and efforts in the preparation of instructional materials and in the refinement of their teaching units.

As a result of requests from staff members at all levels, the administration has become conscious of the needs for audio-visual materials and equipment and has expanded the services of the audio-visual department. One of the services performed by the department is that of training teachers in the use of existing equipment and of new equipment as it is purchased. As a part of the orientation program for new teachers, information concerning the method of obtaining material and equipment is carefully presented. The head of each department within the school has the responsibility of seeing that the instructional materials are used effectively.

In addition to the school's audio-visual budget, each department within the school has its own supply budget which allows for the purchase of special audio-visual materials and equipment needed by that department on a permanent basis. The chairman of each department approves all requisitions before they are submitted to the audio-visual department for processing. The school's Audio-Visual Aids Fund is available to all departments and is divided according to educational needs and results being secured.

During 1957-1958 this tax supported program expended $5.27 per pupil, excluding audio-visual expenditures of departments other than the audio-visual department and all salaries except for monies paid to student assistants.

BUDGET SUMMARY

AUDIO-VISUAL BUDGET

Category	Expenditure	
Audio-Visual Aids Funds		
Purchase and/or rental		$ 5,303
Motion pictures		
Filmstrips		
Color slides		
Recording blanks		
Records		
Photographic supplies		
Still pictures		
Repair and Replacement		
Regular and emergency repair and replacement of audio-visual equipment	$ 700	
Repair and maintenance of P.A. systems	125	825
Capital Outlay		
Motion picture projector	$ 450	
Projector—16mm arc	2,250	
Slide and filmstrip projectors (2)	250	
Screens (5)	170	
Phonograph and P.A. system	110	
Tape recorders (2)	500	
Microphone and stand	130	
Flannelboard	35	
Audiometer	425	4,320
Darkening (4 rooms)		140
Salaries		
Student assistants for early morning and after-school messenger service		600
Total Audio-Visual Budget		$11,188
MONIES OTHER THAN AUDIO-VISUAL BUDGET		
Monies from budgets other than audio-visual for room darkening (the director recommends and approves expenditure)		
Total Monies Other Than AV Budget		2,000
Grand Total		$13,188

CASE STUDY 4

Location: Middle Atlantic States
Population of Suburban Area: 10,000
Type: Suburban school system
Student Population: 2,600
Number of Teachers Served: 180
Number of Schools Served: 5
AV Program Organized: 2 years
Unusual Expenditures: In process of darkening all classrooms over four-year period

STUDENTS GAIN PERSONAL VALUES BY PARTICIPATING IN AUDIO-VISUAL STUDENT ASSISTANT CORPS

Students can gain many personal values by working in the audio-visual student assistant corps. The activities of such a corps are so designed that the student's sense of responsibility is encouraged along with the development of vocational interests which parallel the various facets of the audio-visual program. In this plan there is ample opportunity to encourage the student's creative ability in the production areas and to develop the essential characteristics of being able to work with others.

Among the many students applying for membership in the corps, only those with satisfactory academic status are selected. Junior and senior high school students deliver equipment and materials and serve as projectionists. The academically better students produce recordings, book films, assist in circulating materials, make transparencies for the overhead projector, dry mount flat pictures, and prepare other inexpensive instructional materials. Corps members in the high schools also train those in the elementary schools. All of these student activities permit more time for the teacher in her professional role and greatly improve the instruction in the school system. The audio-visual program could not function without its student corps.

The central location of the audio-visual center, in a newly constructed high school, facilitates the services of the program. An area displaying new materials, catalogs, and professional publications is provided for teachers when they come to the center to get professional assistance or to pick up filmstrips and other materials which are housed there. Individual listening stations for tape and disc recordings and facilities for producing inexpensive teaching materials, for making tape and disc recordings, and for previewing films are available. The $20,000 cost of equipping this center came from bond funds rather than from the audio-visual budget.

Production facilities are used not only for making school-produced materials but are also used extensively in the public relations program of the school system. The director works very closely with the superintendent and the school board in helping to interpret the school system's program to the public. Among the several public relations activities has been the production of a series of slides, with sound, explaining the elementary curriculum. This visual story was initially shown to an audience of about 500 parents and has since been used by all the parent-teacher associations in the district as well as by other school and community groups. As a matter of routine, all school board meetings and major meetings with the public are tape recorded.

The district is in the process of darkening all classrooms at a total cost of $26,000, to be spread over a four-year period. This expense, as well as the salary of the full-time audio-visual director and the cost of equipping the center, is neither included in the Budget Summary nor in the per pupil cost of $5.95 for the audio-visual program in 1958-1959.

BUDGET SUMMARY

AUDIO-VISUAL BUDGET

Category	Expenditure	
Supplies		
Office supplies	$ 571	
Travel	500	
Graphics production	100	
Photographic production	404	
Audio production	82	
Film rental	1,525	
Filmstrips and recordings (at $1.00 per pupil)	2,600	
Other expenses	125	$ 5,907
Repair		
General repair and overhaul	$ 400	
Repair parts	644	1,044
Total Audio-Visual Budget		$ 6,951
MONIES OTHER THAN AUDIO-VISUAL BUDGET		
Tax monies from individual building budgets used for additional replacement equipment		
Total Monies Other Than AV Budget		8,514
Grand Total		$15,465

CASE STUDY 5

Location: South Central States
Population of City: 27,000
Type: City school system
Student Population: 4,200
Number of Teachers Served: 165
Number of Schools Served: 10
AV Program Organized: 13 years
Unusual Expenditures: None

NEW TEACHERS PARTICIPATE IN AUDIO-VISUAL ORIENTATION TRAINING PROGRAM

Each fall the audio-visual director and the building coordinators conduct an orientation program for new teachers to acquaint them with the school's audio-visual program and to encourage use of the audio-visual materials available. All teachers are given a catalog containing complete listings of materials, operating instructions, and suggestions for the utilization of the equipment and materials. Whenever a teacher orders a motion picture film, the producer's guide is also sent so that she will have the benefit of added suggestions and information from the film maker.

The director devotes approximately 60 per cent of her time to the audio-visual program and the remainder to coordinating the elementary education program. Most building coordinators are interested classroom teachers who give of their own time and experience to help others. Student helpers assist in this program as clerks, projectionists, film inspectors, shipping clerks, and equipment (minor) repairmen. Major repairs are handled by local or state audio-visual equipment dealers.

Most types of audio-visual equipment are available for immediate use at each of the 10 school buildings. Films, filmstrips, and slides and some equipment are housed at the audio-visual center and are made available to all schools. Daily delivery service facilitates the circulation of materials and equipment. The local film library contains about 80 films, but this number is only a small part of the films used each year, as most films are rented.

One of the major objectives of the audio-visual program is to improve learning through the planned and integrated use of audio-visual materials in the instructional program. Plans are being made to further this objective by applying for funds under the National Defense Education Act for remodeling the science and mathematics departments and for purchasing appropriate audio-visual materials and equipment.

Support for this budget comes from tax monies specifically allocated to the audio-visual budget. The per pupil cost for the 1957-1958 school year was $1.26, exclusive of salaries.

BUDGET SUMMARY

Category	Expenditure	
Supplies		
Filmstrips for use with controlled readers (6 sets)	$ 465	
Projection lamps	91	
Film rentals	1,000	$1,556
Capital Outlay		
Controlled readers (3)	$ 720	
Projectors—16mm sound (2)	1,120	
Filmstrip projectors (2)	200	
Stripomatic adapter	50	
Record players (6)	720	
Tape recorders (2)	479	
Projection table	40	
Projection stands (3)	23	
Films and filmstrips	400	3,752
Grand Total		$5,308

CASE STUDY 6

Location: New England States
Population of City: 18,000
Type: City school system
Student Population: 4,500
Number of Teachers Served: 243
Number of Schools Served: 8
AV Program Organized: 12 years
Unusual Expenditures: None

BOND FUNDS PROVIDE MONEY FOR AUDIO-VISUAL EQUIPMENT IN NEW BUILDINGS

In this audio-visual program, money for audio-visual equipment in new buildings is supplied from bond funds. The minimum basic equipment purchased for a school includes wall screens for any room where projection might take place; two or more sound motion picture projectors; overhead and opaque projectors; projection stands for each heavy piece of equipment; eight filmstrip projectors; four record players; filmstrip and record cabinets; and rewinds and film splicers. The quantity of each type of equipment varies, depending on the size and type of school to be served.

As the newly appointed administrative assistant to the superintendent, the full-time audio-visual director of this program has as his major responsibilities, beyond his administrative duties, the improvement of the curriculum and the supervision of the audio-visual program. He has a full-time professional audio-visual assistant who is responsible for the evaluation, selection, and utilization of materials and the in-service training of teachers. The assistant audio-visual director also acts as a resource person and consultant to the administrative and supervisory staff, to the teachers, and, upon request, to the community.

Teachers play an important part in the school system's audio-visual program. The audio-visual advisory committee is composed of representative teachers. Teachers are also responsible, to a large degree, for the evaluation of the audio-visual program. The advisory committee makes an annual systematic survey to determine teachers' opinions as to the effectiveness of different types of materials and the reasons why certain materials are not used, the curriculum areas which need strengthening, the use teachers have made of resource persons in the community, and the audio-visual courses teachers have taken For a number of years, an annual audio-visual workshop was held on a voluntary basis with professional credits being awarded for successful achievement, but recently the advisory committee voted to make such a workshop mandatory for all new teachers in the school system.

During the past nine years, the audio-visual program has, by pooling resources with a neighboring school system, successfully operated a cooperative motion picture library consisting of 800 titles. With an increase in the number of films purchased, the demand for rental films is gradually decreasing. These films and many other types of materials in the center are delivered by a part-time helper who also repairs equipment.

The budget is prepared by the assistant audio-visual director. When the occasion demands a reduction in expenditures from different budget categories, the items to be deleted are left to the judgment of the audio-visual center staff. Exclusive of salaries, $3.69 per pupil was expanded during 1957-1958 for this tax supported program.

BUDGET SUMMARY

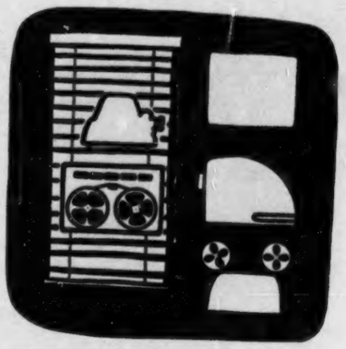
AUDIO-VISUAL BUDGET

Category	Expenditure	
Instructional Materials		
Display and exhibit	$ 125	
Models	250	
Mounting	75	
Slides	300	
Records	900	
Magnetic tape	264	
Film stock (16mm and 35mm)	211	
Filmstrips	1,875	
Films (cooperative library)	1,500	
Rentals	750	
Postage	125	
Insurance	25	
News map of week	118	
Mountings for maps	18	$ 6,536
New Equipment		
Maps and globes	$ 925	
Tape recorders (3)	750	
Screens (5)	165	
Record cabinet	35	
Filmstrip cabinets (4)	100	
Microphones and cables (2)	115	
Plastic projector covers (22)	125	
Motion picture projector	440	
Record players (4)	240	
Filmstrip projectors (3)	165	
Projector tables (2)	70	
Filmstrip viewer	15	
Miscellaneous	150	3,295

Replacement Equipment		
Tape recorder	$ 250	
Microphones and cables (2)	150	
Film splicer	15	
Record player	60	
Auditorium screen	125	
Repair supplies	300	980
Maintenance and Repair		
Film repair	$ 300	
Equipment	800	1,100
Total Audio-Visual Budget		**$11,911**
MONIES OTHER THAN AUDIO-VISUAL BUDGET		
From bond funds for equipping new buildings		4,700
Grand Total		**$16,611**

CASE STUDY 7

Location: North Central States
Population of City: 30,000
Type: Consolidated school system
Student Population: 4,700
Number of Teachers Served: 250
Number of Schools Served: 12
AV Program Organized: 15 years
Unusual Expenditures: TV receivers for closed circuit use



EACH CLASSROOM HAS NECESSARY FACILITIES FOR EFFECTIVE USE OF AUDIO-VISUAL MATERIALS

One of the efforts being made by this city school system to increase the effectiveness of the learning process is to provide classroom facilities and equipment for the proper utilization of audio-visual materials. Each classroom has been provided with adequate darkening facilities and a permanently installed 70" x 70" wall screen. A program to assure that darkening facilities will be an integral part of each new classroom has also been established. Each motion picture projector is shared by no more than five teachers. These projectors are mounted on portable projection tables to facilitate ease of movement to and within classrooms. In addition, each teacher has readily available a filmstrip projector, an opaque projector, and a tape recorder. Elementary school teachers also have access to television receivers for use in their classrooms.

Many films are sent from teacher to teacher along a pre-determined "film circuit" before being returned to the center when demand for the film warrants this procedure. Separate "film circuits" have been established for elementary and junior high school classes. A distribution system, in conjunction with the "film circuit" system, adds the flexibility necessary to provide a large number of teachers in different schools with any particular rental film obtained for a specified period of time.

The director has established an extensive film previewing program which is designed to acquaint teachers with information about recently released films. This previewing program shortens the time between the release of a new film and its use in the classroom. Purchases are based on teachers' recommendations. By expanding the audio-visual center's own film library, it more adequately meets the needs and requests of individual teachers.

Study guides for use with films on a particular grade level are provided. Each teacher receives a notebook with as many of these guides as are available. These notebooks are revised at least once a year to bring the material up-to-date.

Specific filmstrip titles have been made more readily accessible through the development of filmstrip libraries in individual schools. A complete filmstrip catalog is accessible to all teachers and a distribution system provides the service necessary to deliver any filmstrip in this system to any teacher.

In addition to the full-time director and full-time secretary-assistant, a student staff aids in the center's operations during the day. The students serve as instructors to demonstrate the operation of equipment to teachers and other students. They also clean and repair films, supervise the tape recording of material, handle some of the clerical work, and act as all-around trouble-shooters.

Preventive maintenance on all pieces of equipment is under the control of the audio-visual center. During the summer months of each year, all equipment is cleaned and oiled, excessively worn parts are replaced, and a final operational check is made to see that the equipment is ready for another year of service. Should an equipment breakdown occur during the school year, a reserve machine is sent to the teacher to replace the machine requiring service.

An audio-visual center bulletin, published twice a month, serves as one means of communication between the audio-visual center, classroom teachers, and the board of education. Included in this bulletin are TV program schedules, information about materials available at the center or from rental libraries, and other timely and relevant audio-visual information. This bulletin is also intended to stimulate creative thinking about audio-visual materials and their use in the classroom. The audio-visual director confers with the superintendent at regular monthly meetings to assure closer coordination of the center's activities and the needs of the entire system.

The director is now in the process of helping to develop a complete language laboratory in cooperation with the modern language teachers in the high school. This laboratory, with an estimated cost of approximately $5,000, will be an extension of the present recording facilities.

The financial support for this audio-visual program comes from regularly apportioned tax funds which are specifically allocated to the audio-visual budget. Tax funds allocated to other departments for audio-visual facilities are also spent by this audio-visual center. During the 1957-1958 school year, the amount expended for the audio-visual program was $4.07 per pupil, exclusive of salaries.

BUDGET SUMMARY

AUDIO-VISUAL BUDGET

Category	Expenditure	
Maintenance of Instruction		
AV supplies (purchase of films, filmstrips)	$2,200	
Film rentals, transportation, and guides	3,900	$ 6,100
Maintenance of Equipment		
Repair and upkeep of equipment		700
Capital Outlay		
Equipment	$6,300	
TV receivers for closed circuit use	2,750	9,050
Total Audio-Visual Budget		$15,850

MONIES OTHER THAN AUDIO-VISUAL BUDGET

(Monies allocated to other departmental budgets
but expended by the audio-visual department)

Improvement to buildings (room darkening facilities)	$1,925	
Purchase of equipment	1,357	
Total Monies Other Than AV Budget		3,282
Grand Total		$19,132

CASE STUDY 8

Location: Pacific States
Population of City: 14,000
Population of School District: 26,000
Type: City school system
Student Population: 6,200
Number of Teachers Served: 280
Number of Schools Served: 16
AV Program Organized: 14 years
Unusual Expenditures: In third year of a five-year program to provide light control for all classrooms

AUDIO-VISUAL PROGRAM OBJECTIVE IS TO MAKE AUDIO-VISUAL MATERIALS AS READILY AVAILABLE AS BOOKS

To make audio-visual instructional materials as readily available as books is the primary objective of this program. Students and teachers are supplied with materials, such as educational motion pictures, sound and silent filmstrips, slides, recordings, tapes, radio and television programs, pictures, models, specimens, exhibits, and guides for field trips.

Contributing to the successful utilization of these instructional materials is the daily delivery service to schools. Delivery is accomplished by use of a truck to the 11 schools nearest the department's distribution office and by school bus to the others.

Although the audio-visual program has been in existence for 14 years, it has made its most rapid strides during the last four years. The board of education, with the guidance of the administrative staff, has provided funds necessary for a well-balanced program.

Three years ago a goal was set to provide light control facilities in each classroom within a five-year period. To date the system has completed light control facilities in five schools. In the remaining schools, completion is well on the way. This project has had the enthusiastic support of teachers and has already shown that it will more than pay for itself in better utilization of projected instructional materials. The administrators believe that basic audio-visual equipment and light control facilities for new schools should be paid out of bonds or a serial levy set up for that purpose rather than out of the audio-visual budget.

With the cooperation of the principals, audio-visual building coordinators, teachers, and the audio-visual supervisor, a plan has evolved which allocates new equipment and light control facilities according to the need of individual schools. Funds are provided for a systematic replacement of equipment which is worn out or no longer useful.

While the full-time audio-visual supervisor is the only professional member in the department, he has the services of a half-time secretary, a half-time truck driver, and two part-time student helpers as well as the assistance of 11 secretaries from the high school office-training program who work for one period each day.

For the 1958-1959 school year, tax monies supported the $4.19 per pupil cost, exclusive of: salaries, minor repair of equipment, individual school supply budgets for the purchase of permanently located instructional materials, P.T.A. equipment gifts, and audio-visual equipment and light control facilities for new school buildings.

BUDGET SUMMARY

Category	Expenditure	
Instructional Materials		
Educational film purchases	$2,000	
Filmstrip library	1,000	
Records and recordings	200	
Recording fees for tapes for teaching	50	
Kits, mockups, models	150	
Inexpensive materials	100	
Educational film rental fees	4,000	
Postage and insurance of films	275	
Office supplies (special)	300	
Educational Film Library Association (dues)	125	
Educational Film Guide		
Educational Filmstrip Guide		
Educational film catalogs		
D.A.V.I. membership dues for all district schools		
Educational Screen and Audio-Visual Guide	4	
Professional books	15	
Additions to *Instructional Materials Handbook*	100	
Magnetic tapes (48)	90	$ 8,409
Maintenance, Repair, and Replacement		
Maintenance and repair of equipment located in schools		
Projection and other lamps	$ 460	
Service and repair of equipment sent out	800	
Repair parts for equipment serviced in AV department	500	
Salary of service man	960	
Maintenance and repair of equipment in AV department	100	2,820
Replacement of equipment located in schools		
Projectors—16mm motion picture (5)		
Tape recorders (3)		
Opaque projectors (3)		
Filmstrip and slide projectors (6)		3,500
Capital Outlay		
New equipment and room light control for 16 schools and equipment centered at audio-visual office for circulation		10,800
Transportation: Mileage		434
Grand Total		$25,963

CASE STUDY 9

Location: Mountain States
Population of County: 630,000
Type: County elementary school district
Student Population: 7,231
Number of Teachers Served: 310
Number of Schools Served: 10
AV Program Organized: 3 years
Unusual Expenditures: None

AUDIO-VISUAL PROGRAM IS JUSTIFIED TO THE EXTENT THAT IT SERVES AS A MEANS OF IMPROVING INSTRUCTION

An audio-visual program can be justified only when it serves as a means to the improvement of instruction. The realization of this fact has made possible the growth of the audio-visual program in this county elementary school district. A systematic study, involving the following six steps, was made to determine the needs of the audio-visual program and to implement practices to satisfy these needs:

1. A study of the curriculum was made.
2. Current inventories of instructional supplies and materials were surveyed.
3. These findings were related to local surveys and to studies conducted by the U.S. Office of Education and the Division of Audio-Visual Instruction, N.E.A., to determine where deficiencies existed.
4. Obvious deficiencies were presented to the superintendent and school board, along with a plan for the correction of the condition. The plan considered tax rate, growth of assessed evaluation, growth in enrollment, past usage of materials, and revised methods of operation.
5. Continued expenditures were based on records of teacher acceptance and usage of materials provided.
6. High rate of usage was based on teachers' knowledge of the value of audio-visual materials in teaching.

The success of this program has been due to the vision, understanding, and philosophy of the superintendent, assistant superintendent, and school board.

The full-time director of this county elementary school district is assisted by a secretary. Each of the nine elementary schools in the district has its own audio-visual coordinator who receives a salary increment of $300 per year.

This district film library provides a daily delivery service. Teachers may order films and other materials up to 4:00 P.M. and expect to receive them at 9:00 A.M. the next day. During two years of this type of service, only four orders had to be marked "unavailable." Also available from the county center are phonograph records, filmstrips, study prints, maps, globes, charts, aquariums, and terrariums. The center provides 16mm motion picture, slide, filmstrip, and opaque projectors; phonographs; cameras; microprojectors; tape recorders; public address units; microphones; screens; and projection carts.

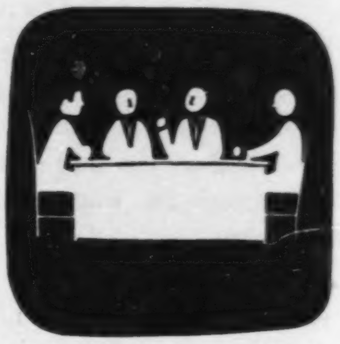
Excluding salaries, this tax supported program cost $3.30 per pupil during 1958-1959.

BUDGET SUMMARY

Category	Expenditure	
Supplies		
Phonograph records	$ 877	
Filmstrips	500	
Study prints	500	
Film rental	100	$ 1,977
Repair		600
Operational		
Postage	$ 150	
Film and processing	75	
Emergency contingency	200	
Audio-visual books	25	
Freight	600	
Travel	200	1,250
Films		
Previous commitments	$3,238	
Current	1,000	4,238
Equipment		
Instructional—projectors, radios, screens	$5,789	
Maps, globes, charts	5,884	
Film library	329	
Room darkening	3,766	15,768
Grand Total		**$23,833**

CASE STUDY 10

Location: Middle Atlantic States
Population of City: 20,000
Type: City school system
Student Population: 7,500
Number of Teachers Served: 390
Number of Schools Served: 7
AV Program Organized: 6 years
Unusual Expenditures: Individual school filmstrip libraries and light control project



AUDIO-VISUAL DIRECTOR SERVES ACTIVELY AS MEMBER OF SUPERVISORY STAFF

This full-time audio-visual director is a member of the district supervisory staff, which includes a reading supervisor, speech supervisor, library coordinator, and pupil personnel director. He works closely with the principals of individual schools and is an active member of curriculum committees. He has a sound general knowledge of the entire educational program as well as of curriculum, teaching methods and materials, equipment, building plans, and finance. Thus, it is possible for him to foresee the areas of the instructional program in which audio-visual materials can be utilized.

Audio-visual materials are widely employed in this system's expanding public relations program. Services offered by the center extend beyond the classroom to include aiding the superintendent in visual presentations of complex facts and problems to the school board; aiding in the selection and acquisition of films for youth and community organizations; or advising business groups in the community on the performance and suitability of a piece of audio-visual equipment they wish to purchase.

This system's audio-visual program plays a vital role in the over-all educational program. It is not looked upon as a supplement to the program, but as an integral part of the educational experiences afforded pupils. The key to the establishment and continuation of the program is stated in one word—"service." Service means having the right materials and equipment in the proper place at the time desired. It is the director's job to know what is available, where it can be obtained, how much it costs, how it may be utilized, and what results can be expected from its use in the classroom. Since the program is designed to serve all students in this district, audio-visual materials especially applicable for the mentally retarded, the gifted, and the slow learners are included among those available to the teachers.

In-service training programs, on both an individual and a group basis, have aided in the professional training of teachers and other staff members and in the growth and development of the total audio-visual program. Bulletins, newsletters, and catalogs keep the teacher informed of the more recent developments and thinking in the field and stress the importance of proper utilization of materials in the classroom.

As the audio-visual program developed, it became necessary to select and appoint a building coordinator for each school. These coordinators are outstanding teachers in the system with the personal qualities necessary to inspire others to use audio-visual materials more effectively. In the elementary school, the building coordinator is selected from the upper grades because his students are older and more able to aid in projection and minor repair of equipment if necessary. Coordinators in the elementary schools are relieved of all extra duties, such as playground, cafeteria, bus, and hall duties, in order that they may have the time to perform the important functions required leading to the improvement of instruction in their building. Junior and senior high school building coordinators are allotted two periods to perform their work.

Clerical assistance enables the director and building coordinators to concentrate on the important professional services required by the teachers. One of the services performed by the director is to demonstrate the use of materials and equipment with the teacher's class. Shortly after the demonstration, questions are raised and answered concerning the use of materials for this and other class units.

Teachers take many pictures on school journeys and their personal vacation trips and use the slides in their classes as well as loan them to other teachers. Many student-prepared materials have also proved to be effective in learning situations.

Filmstrip libraries, in each school on a self-service basis, are being expanded. Projectors, screens, and phonographs are stored in convenient places throughout the schools, making them readily available to teachers. Most of the motion picture films are ordered in the spring for the following year. However, film funds are not completely allocated in advance; a portion is reserved for obtaining new films as they become available.

This year, when the light control program of the district is completed, all teachers will be able to use projected materials in their own classrooms. New school buildings will have the cost for such facilities included in the original building fund.

The district's audio-visual budget is a compilation of the budgets of all the schools. The audio-visual budget of each school is made up by the director for inclusion in the total budget of that school, subject to the approval of the principal. The final audio-visual budget approved in each school then reverts back to the director for allocation. Salaries, travel expenses within the district, and non-specific expenses are placed in a separate category entitled "special services" and are not reflected in the Budget Summary. Funds for the operation of this audio-visual program come from tax funds, with an expenditure of $4.10 per pupil for the 1957-1958 school year.

BUDGET SUMMARY

Category	Expenditure
Photographic supplies, developing, printing	$ 1,250
Miscellaneous consumable instructional supplies (recording discs, tapes, exhibit material, slide supplies)	845
Office supplies	350
Professional books, pamphlets, catalogs	125
Purchase of filmstrips	4,050
Purchase of recordings (non-musical)	525
Rent-to-own purchase plan	1,905
Film rentals	
Elementary schools (5)	1,845
Junior high school (1)	825
High school (1)	1,700
Purchase of equipment (projectors, screens, camera)	4,792
Repairs, replacements, and spare parts for equipment	1,798
Replacement of darkening shades	400
Purchase of new darkening shades	325
Purchase of darkening drapes	4,335
Travel (outside district)	335
Educational field trips	5,360
Grand Total	$30,765

CASE STUDY 11

Location: South Atlantic States
Population of City: 49,000
Type: City school system
Student Population: 8,500
Number of Teachers Served: 300
Number of Schools Served: 15
AV Program Organized: 6 years
Unusual Expenditures: None

SCHOOL SYSTEM PARTICIPATES IN BROADCAST TELEVISION EXPERIMENT

Along with other school systems in the state, this system is participating in a three-year experiment in broadcast television sponsored by the Fund for the Advancement of Education. Funds allocated in the budget for this effort are being used to provide audio-visual equipment and materials especially suited for the teaching of classes of 125 students or more. The audio-visual department is responsible for the purchase of equipment and the development of its use. Upon the conclusion of the experiment, the equipment will be used primarily in the individual school where the experiment was conducted but will be controlled by the school system's audio-visual department.

The budget of the audio-visual department is provided by the board of education upon recommendation of the superintendent and is managed by the audio-visual director. Room darkening facilities and inter-communication systems are charged to other capital outlay accounts rather than to audio-visual funds. The purchase of items, such as maps, charts, globes, and recordings, and of materials consumed in use in the instructional program is covered by a supply fund allocated to individual school budgets. Although the audio-visual department helps select many of these items, it does not pay for these out of its budget.

In general, individual schools provide about 50 per cent of the funds used in the acquisition of new equipment, with a varying amount of assistance coming from the audio-visual budget. Minimum standards for acquiring equipment, in terms of the number of teachers to be served, have been established and are being met. For example, each school has a 16mm projector for each eight teachers. These standards vary for different types of equipment and will change as teachers increase their use of various kinds of materials.

An increasing variety of materials, including films, filmstrips, sound filmstrips, slide sets, and flat pictures, is being made available to the teachers through the audio-visual department. Information about these materials is furnished by means of a 3" x 5" card catalog. A master cross-referenced and alphabetical catalog is provided for each school. Individual teachers are furnished with that segment of the cross-referenced catalog which is pertinent to their particular work. Supplementary materials from rental sources are obtained by requests channeled through the audio-visual office and are delivered daily, along with locally available materials, by a system-owned delivery truck. Orientation for new teachers in the system, training programs in the use of equipment and materials, and production of special materials are among the services offered by the department.

The school system operates one of three independent audio-visual programs within the county. The audio-visual director is attempting to improve instruction by (1) developing and maintaining a functional relationship of audio-visual materials to curriculum content and objectives, (2) fostering improvement in the appreciation for and skill in the use of audio-visual materials by the teachers of the system, and (3) establishing a service program which generates enthusiasm for the use of audio-visual materials and equipment.

The audio-visual director devotes four-fifths of his time to the audio-visual program and the remainder to duties concerning attendance and records. He has a full-time secretary-clerk, a delivery truck driver half time, and two student helpers, each of whom works three hours a day. The secretarial staff of the superintendent's office assists in the printing and publication activities of the department. The cost involved in this is paid from sources other than the audio-visual budget.

The program is supported largely by tax funds, with approximately $7,000 specifically allocated for the audio-visual budget, $3,500 from individual school budgets that provide about 50 per cent of the funds for audio-visual equipment, and $7,500 allocated for use in the educational television experiment. Exclusive of salaries, room darkening facilities, inter-communication systems, printing and publication activities, materials consumed in use in the instructional program, and items, such as maps and globes, the per pupil cost for the 1957-1958 year was $2.11.

BUDGET SUMMARY

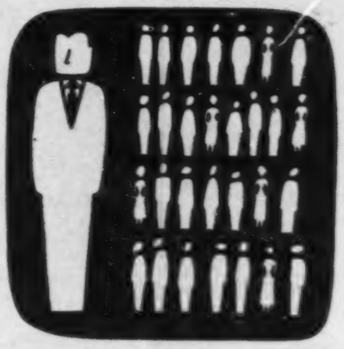
AUDIO-VISUAL BUDGET

Category	**Expenditure**
Current Expense	
Repair and maintenance of equipment—audio-visual budget bearing 50 per cent	$ 350
Replacement of minimum equipment—audio-visual budget bearing 50 per cent	500

Rental of films	500	
Film and filmstrip repair and replacement	300	
Photographic supplies and equipment	300	$ 1,950
Capital Outlay		
New materials for department library	$ 3,000	
New equipment for minimum standards	500	
Matching funds for equipment in excess of minimum standards	1,000	
Equipment for new schools	500	5,000
Total Audio-Visual Budget		$ 6,950
MONIES OTHER THAN AUDIO-VISUAL BUDGET		
Matching funds by individual schools	$ 3,500	
Educational television	7,500	
Total Monies Other Than AV Budget		11,000
Grand Total		$17,950

CASE STUDY 12

Location: North Central States
Population of City-County: 60,000
Type: City-county consolidated
Student Population: 9,700
Number of Teachers Served: 305
Number of Schools Served: 22
AV Program Organized: 15 years
Unusual Expenditures: None



TRAINED STAFF CARRY OUT NECESSARY AUDIO-VISUAL SERVICES

The audio-visual program of this city-county consolidated school system is administered by a full-time audio-visual director assisted by a half-time radio director, a half-time coordinator of educational tours, and a full-time film librarian and secretary. Also important to the functioning of the program are 22 qualified audio-visual building coordinators, 22 high school radio workshop students who perform every duty necessary for the operation of the school-owned educational FM radio station, and over 100 trained students who operate the various types of audio-visual equipment at the junior and senior high school levels. Each elementary teacher is a qualified equipment operator, as are numerous teachers on the secondary level. Ten staff members, including the superintendent, are qualified photographers.

Well-conceived objectives for the program have been formulated and communicated to teachers, administrators, and students with provision for suggestions from them so that a continuous evaluation of the program is possible. The audio-visual center is continuously striving for improvement of classroom instruction through the use of a wide variety of materials, through in-service training of the teaching staff, and by stimulating experimental activities in the various aspects of the audio-visual program. The center is also endeavoring to build community pride for the total school program and to improve school-community relations by interpreting the school's program and services to the community.

The audio-visual department's collection of materials includes tape and disc recordings, filmstrips, slides, sound motion pictures, and a children's museum. The department also offers such services as inter-communications, photographic services, educational tours, radio broadcasts, and television programs for large class experimentation. As a result of these services and materials offerings, 303 of the 305 teachers in the system are regular users of the film program, with an average utilization of 17 films each per year.

At the fall in-service training session, all new teachers are given an overview of the audio-visual program, including the services available and the ways in which they can make effective use of them. Principals and coordinators then take over and give an intensive training session. Each teacher is given (1) a pamphlet, developed by the director, entitled *101 Questions and Answers About Our Audio-Visual Program;* (2) a school system film and filmstrip catalog and a complete schedule of rental films which are to be used in the building for the year; (3) a selected bibliography of films and filmstrips recommended for use in either the subject-matter area or grade level taught; and (4) a teacher's manual for radio broadcasts suitable for the grade level taught.

The audio-visual department has a daily truck delivery to all urban schools. Outlying schools are effectively provided for by having students who ride the school busses serve in a delivery capacity.

The audio-visual director believes that (1) the success of the audio-visual program within a school depends upon the school principal; (2) the proper environment must be created so that the superintendent, principals, supervisors, teachers, building custodians, students, parents, and taxpayers will become actively interested in the audio-visual program; (3) each classroom must be darkened and sound treated of which 87 per cent are now darkened and over 50 per cent sound treated; (4) details should be the responsibility of the teacher and students rather than that of the building coordinators; (5) there should be a minimum of teacher-prepared materials; and (6) equipment should be purchased and maintained on a service-contract basis.

Teacher-equipment ratios have been established for most equipment as follows:

Item	Teachers per piece of equipment
Sound motion picture projector	10
Slide and filmstrip projectors (2 x 2)	15
Lanternslide projectors	21
Overhead projectors	153
Opaque projectors	60
Press cameras	153
Cameras (35mm)	51
Transcription players (elementary only)	3
AM-FM radios (elementary only)	1
Tape recorders	20

This community is not wealthy, and the director believes that non-tax funds are most helpful in maintaining an adequate program. There is enthusiastic support on the part of the community and financial support from the parent-teacher associations. For 12 years prior to city-county consolidation, the city system spent an average of $6.00 per pupil for audio-visual equipment and materials while the county spent practically nothing. With the coming of consolidation, the per pupil expenditure dropped to $2.14, exclusive of salaries, for the 1958-1959 school year, with the greater portion of the funds coming from tax monies allocated to the audio-visual budget or to other budgets controlled by the director.

BUDGET SUMMARY

AUDIO-VISUAL BUDGET

Category	Expenditure	
Materials (new and rental)	$ 2,050	
Maintenance and replacement (equipment)	1,500	
Capital outlay (films and AV equipment)	2,500	
Capital outlay (radio equipment)	500	
Total Audio-Visual Budget		$ 6,550
MONIES OTHER THAN AUDIO-VISUAL BUDGET		
Accumulative building fund (drapes)	$ 1,045	
School holding corporation (drapes)	1,555	
Accumulative building fund (equipment)	860	
School holding corporation (equipment)	860	
Individual teacher supplies budgets	433	
Miscellaneous (equipment)	180	
Gas and service (tour bus)	1,100	
Insurance on equipment (valued at $27,288)	344	
Total Tax Monies Other Than AV Budget		6,377
MONIES FROM NON-TAX SOURCES		
Radio operation (student council donations)	$ 523	
Profit from sale of student pictures	1,640	
P.T.A. 50-50 matching money (equipment)	2,436	
Kiwanis (vocational film rental)	40	
Athletic department (radio)	250	
Extracurricular accounts (individual schools)	237	
Book rental fund (toward second tour bus)	2,400	
Tour bus use charges (maintenance of bus)	300	
T.P.A. (rental of films)	25	
Total Monies from Non-Tax Sources		7,851
Grand Total		$20,778

CASE STUDY 13

Location: South Atlantic States
Population of County: 28,827
Type: County school system
Student Population: 10,000
Number of Teachers Served: 488
Number of Schools Served: 21
AV Program Organized: 2 years
Unusual Expenditures: None

INSTRUCTIONAL SURVEY GIVES SUPPORT TO AUDIO-VISUAL PROGRAM

This young, growing county audio-visual program gained much impetus and support as a result of an instructional survey, made by a team of experts from two universities. This survey identified an urgent need for an adequate instructional materials program to support the total school curriculum. As a result, a county instructional materials center has been developed to encompass all the usual audio-visual and library activities, materials, and equipment.

The director of the center devotes approximately half of his time to the audio-visual program and the other half to other functions of the materials center, including supervision of the county library program, central purchasing of all instructional materials and equipment, central processing of library books, and central storeroom service for all library and audio-visual supplies. In all but two elementary schools there is a materials specialist devoting full time to the audio-visual and library programs.

All purchases of audio-visual equipment for existing schools are included in the budget allocation of the county school system for furnishings and equipment of all kinds. As each new school is opened, it is provided with a basic set of audio-visual equipment costing about $5,000 and financed from the building fund. This basic set of equipment consists of the following items:

1	sound projector, 16mm
2	filmstrip projectors
1	tape recorder
2	mobile projection tables
1	auditorium record player
6-8	classroom record players
2	portable projection screens
1	auditorium screen

The audio-visual portion of the instructional materials budget provides for the purchase of films, filmstrips, audio-visual and professional periodicals, instructional materials, and audio-visual center equipment. All of the funds are tax monies specifically allocated to the audio-visual budget. Included in this budget is an individual school allocation of at least 75 cents per pupil for audio-visual materials, excluding films. This is supplemented by another allocation of 25 cents per elementary pupil and 30 cents per secondary pupil for library and audio-visual supplies.

During 1957-1958, the amount expended was $2.85 per pupil, excluding salaries and all equipment used in the schools, but including equipment items used only in the audio-visual center.

BUDGET SUMMARY

AUDIO-VISUAL BUDGET

Category	Expenditure
Library Supplies	
AV and professional periodicals	$ 400
Films	
Films, filmstrips, and slides	12,500
Instructional Materials	
Flat materials, recordings, repair, supplies and printing, professional leave, professional books, curriculum materials, rental and postage, other	3,595
Medical and First Aid Supplies	5
Equipment	3,500
Reserve for Contingencies	1,000
Total Audio-Visual Budget	$21,000

MONIES OTHER THAN AUDIO-VISUAL BUDGET

Individual schools' expenditure for audio-visual material budget (excluding films and audio-visual equipment) set up by level and county formula based on 75¢ per pupil	
Total Monies Other Than Audio-Visual Budget	7,500
Grand Total	$28,500

CASE STUDY 14

Location: Mountain States
Population of County: 38,974
Type: Unified school district
Student Population: 10,000
Number of Teachers Served: 495
Number of Schools Served: 38
AV Program Organized: 6 years
Unusual Expenditures: None

SCHOOL DISTRICT REORGANIZATION MAKES POSSIBLE AN AUDIO-VISUAL PROGRAM

Since reorganization, this unified school district includes all but three small areas in a large county and serves 10,000 pupils with its audio-visual program. The audio-visual services are administered by a director on a half-time basis, a half-time secretary, and one high school student who assists for two hours each day in such routine matters as ordering, receiving, routing, and servicing materials. The director works through audio-visual coordinators in each school to serve teachers, curriculum study groups, and parent-teacher organizations.

This unified school district is nearing its goal of providing a minimum amount of audio-visual equipment in each school. One important feature of the audio-visual program is a service department which maintains all types of audio-visual equipment and provides items on loan to those schools having equipment repaired. The service department also keeps a record of maintenance costs on each piece of equipment, prepares a service budget, and schedules equipment for needed replacements.

The materials library now includes filmstrips, disc and tape recordings, 2" by 2" slides, and films, and also supplies film guides to teachers in advance of the actual use of the film. Tape recordings are made of important lectures and conferences and are duplicated as requested.

Assistance is given building coordinators and teachers in the selection and use of all materials. Catalogs of materials are provided and are revised periodically to include new purchases. All requests, including rentals, are handled through the central office.

A new administration building nearing completion will include an instructional materials center which will provide an expanded audio-visual service.

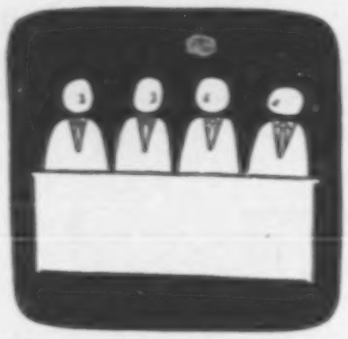
Funds to carry on the program are procured from regular tax sources. Excluding salaries, the 1958 per pupil expenditure for the audio-visual program was $1.91.

BUDGET SUMMARY

Category	Expenditure	
Materials		
Recordings (disc)	$ 800	
Recording tape	220	
Filmstrips	400	
Film purchase (rent-to-own)	1,453	
Film rentals	7,000	
Postage and insurance	27	$ 9,900
Replacement of Equipment		
Projection screens	$ 256	
Sound projectors (16mm)	1,125	
Tape recorder	200	1,581
Repair of Equipment		1,375
New Equipment—Capital Outlay		
Projection screens (9)	$ 288	
Record players (3 speed) (12)	780	
Tape recorders (8)	1,120	
16mm sound projectors (6)	2,550	
Strip and slide projectors (4)	280	
Group audiometer earphones (30)	650	
Opaque projector	315	
Projector carts (15)	300	6,283
Grand Total		$19,139

CASE STUDY 15

Location: North Central States
Population of City: 65,000
Type: City school system
Student Population: 11,000
Number of Teachers Served: 485
Number of Schools Served: 14
AV Program Organized: 6 years
Unusual Expenditures: Public address systems installed in four old buildings



SCHOOL BOARD ASSUMES RESPONSIBILITY FOR CLASSROOM FACILITIES FOR EFFECTIVE LEARNING ENVIRONMENT

The members of the board of education in this city school system take the position that it is their responsibility to provide the classroom facilities and the learning environment necessary for proper mental growth. They also deem it important to provide an adequate supply of audio-visual materials and equipment in all subject-matter areas in which the audio-visualized approach to learning may be used to advantage.

Because a number of teachers in this system have felt a need for receiving instruction in the utilization of modern teaching tools, the audio-visual director established an extensive in-service training program. This program benefits teachers by keeping them informed of current trends, techniques, materials, and communication research and theory in the audio-visual field and of changes in the audio-visual department's policies and procedures. Consulting teachers and principals assist in the development of the over-all program.

Material available to the teachers include films, filmstrips, and tape recordings. Before a decision to purchase a film is made, it is first previewed by teachers and the director and then is used in a classroom to evaluate its effectiveness in a teaching situation. Filmstrips, however, are selected by each school and are kept within that school for its own use. An allotment of 10 cents per pupil per year is allowed each school for the purchase of filmstrips. A catalog which lists and describes other materials available from the audio-visual department is at the disposal of all teachers in the system. This catalog is revised every two years. Teachers may order films from one day to a year in advance and may also telephone for immediate scheduling of available materials. Delivery is made to all schools twice daily by an inter-school mail truck. This frequent delivery enables maximum usage from the film library and has brought about a circulation of 90 to 100 films a day.

At the present time the audio-visual equipment inventory is being expanded to meet the minimum equipment requirements established in 1956 by the Audio-Visual Council on Public Information. The audio-visual director agrees that these are minimum standards but points out that no one should be deluded into accepting them as maximum goals to meet completely the needs of children today for a well-rounded education.

To perform all of the functions required of an audio-visual program to meet the instructional needs of students and teachers, provisions have been made to add an assistant to the staff of this full-time audio-visual director. One of the more important duties of the assistant will be to provide an in-service training program for teachers. Since the clerical work of this audio-visual department's film and tape library is handled by four full-time clerical and technical workers, the director is able to devote more time to his professional responsibilities.

In the elementary schools, audio-visual coordinators maintain and schedule equipment and materials at their schools. These coordinators are released from some of their extracurricular activities. Secondary school coordinators are given released time to perform their professional audio-visual duties. Student audio-visual service club members in the secondary schools are assigned to operate equipment for teachers in their classrooms, thus relieving teachers of this detail so that they may direct all of their efforts toward more effective instruction.

A program of classroom darkening was started in 1955. It is anticipated that by 1960 every classroom will have a wall screen and complete light control facilities. The audio-visual director has been assigned the responsibility for light control, including diffusion drapes for sun control and plastic drapes for darkening, in all new buildings.

A complete public address system is also provided in each new building. This includes not only an inter-communication system, but also an FM-AM radio, record player, tape recorder, and recording and playback facilities.

An important responsibility of the audio-visual director is to keep the public informed about new teaching methods as they are developed and utilized to bring about an increase in learning. This school system believes that keeping the public informed is a matter of (1) establishing good community relations, (2) maintaining a proper rapport between parents and the schools, and (3) enlisting community support for a well-rounded educational program.

When it can be done without interfering with the school program, the director provides films, projectors, and screens, requested by community organizations. This service benefits the over-all public relations program, has an educational value to the public by enlightening it about new techniques of teaching, and thus creates support for the total educational program.

For the 1957-1958 budget year, $5.13 per pupil, exclusive of salaries, was expended from tax funds for this program.

BUDGET SUMMARY

AUDIO-VISUAL BUDGET

Category	**Expenditure**	
Supplies		
Films	$ 5,000	
Filmstrips	1,100	
Tapes	700	
Cataloging	400	
Art and photo	1,000	
Office supplies and postage	300	
Spare parts	800	
Miscellaneous	3,200	$12,500
Repairs		2,500
Equipment		
Projectors—16mm	$ 3,330	
Filmstrip projectors	850	
Opaque projectors	900	
Record players	1,800	
Tape recorders	1,500	
Overhead projectors	800	
Screens	2,000	
Miscellaneous	3,820	15,000
Total Audio-Visual Budget		$30,000

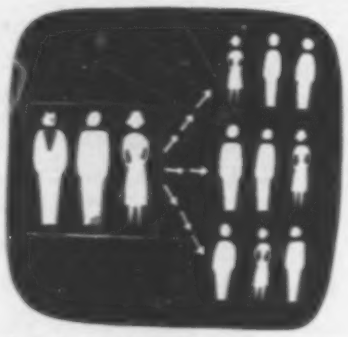
MONIES OTHER THAN AUDIO-VISUAL BUDGET

Monies from budgets other than audio-visual but the director recommends the expenditure and approves the materials for which it is spent.

Darkening drapes (55 rooms)	$ 6,500	
Diffusion drapes	6,500	
Public address systems (4 installed in old buildings)	12,000	
Filmstrips	800	
Record players	600	
Total Monies Other Than Audio-Visual Budget		26,400
Grand Total		$56,400

CASE STUDY 16

Location: North Central States
Population of City: 100,000
Type: City school system
Student Population: 13,225
Number of Teachers Served: 451
Number of Schools Served: 14
AV Program Organized: 10 years
Unusual Expenditures: None



EXPERIENCED AUDIO-VISUAL STAFF COMMUNICATES THE NEEDS OF THE EDUCATIONAL PROGRAM TO THE PUBLIC

The board of education, superintendent, and administrative staff of this city school program utilize the training and experience of the audio-visual department personnel to communicate to the public the achievements, needs, and problems of the educational program. The cooperative effort of all school personnel and the use of a coordinated audio-visual media approach to publicize educational bond issues has resulted in the community's approval of all school bond issues within the past 10 years. Examination of a recent bond issue campaign for a second high school demonstrates the effectiveness of varied but organized efforts directed toward different groups of people in different situations.

Campaign plans have been formulated by a steering committee established by the superintendent of schools. The responsibility of this committee, which is composed of representatives from the school's supervisory and administrative staffs and from community and school associated organizations, centers around the utilization of leaders in the school community and a coordinated audio-visual media approach to the areas of visual presentations and displays, printed materials, a speakers bureau, and organized visitations.

Visual presentations include portable displays consisting of pictures and graphs and local television program coverage documenting the need for the high school. Copies of a film presented on television are also shown in places where crowds gather.

Printed materials are in the form of sponsored newspaper ads and editorial support published in the nearby city and local papers; handouts, brochures, and letters taken home from school by the students; trick or treat fliers distributed by children on Hallowe'en; place mats distributed to local restaurants, churches, and service clubs; and letters initiated by the board of education and sent to all residents in the school district.

The speakers bureau, composed of members of the board of education, administrative and supervisory staffs, teachers, and selected high school students, spoke to 65 different groups during one month preceding a vote on the bond issue.

The school district is organized into block units to assure complete coverage of the district by parent-teacher association members who visit each home in the area with information concerning the bond issue. These visitations are one of the most effective ways of reaching homes in which there are no children in the public schools.

Success of the campaign is credited to the efforts of many persons and to the variety of media utilized to reach a large number of people in a short period of time. Elimination of any one effort would undoubtedly lessen the degree of community support.

Recognizing that parent-teacher groups serve as a bridge between school and home, the audio-visual director, superintendent, principals, and teachers provide a service program for these groups. A folder containing a list of adult films available from local and national organizations and of interest and educational value to this type of group is given to each of the program chairmen. This folder also contains information about the procurement and cost of materials and the student projectionist service. Training is also provided for any member of the parent-teacher association who wishes to learn the operation of audio-visual equipment.

The staff of this elementary-junior high audio-visual program includes a full-time director for the elementary level, a full-time junior high school coordinator, a half-time secretary, and a full-time deliveryman and inspector. Each of the elementary schools has at least one audio-visual coordinator; whenever the number of teachers exceeds 14, a second coordinator is assigned. In the junior high school a student audio-visual operator crew aids the coordinator. The audio-visual persons at all levels in this system, including the high school coordinator, work together as a team with the curriculum director to provide the instructional materials and services necessary for a strong educational program.

In-service training is one of the primary functions of this audio-visual program. All new teachers at the elementary and junior high school levels receive both individual and group instruction in the functions and operations of the audio-visual center. A local audio-visual institute, conducted yearly for all elementary teachers, is devoted entirely to the utilization of materials in which outstanding teachers demonstrate the use of various instructional materials in their respective subject-matter areas and encourage the sharing of creative ideas.

Instructional materials, such as traveling kits, flat picture sets, charts, and exhibits, are set up in the libraries of each elementary school for two weeks on a rotating basis. Principals are requested to give released time to all teachers for previewing the materials for possible use in their classrooms. Many items listed in the audio-visual catalog have been presented to the school system by stores and industries in the local and surrounding area. These materials include flat pictures, working models, and actual objects. The audio-visual personnel are constantly searching for new materials and resources in the community. Teachers are also supplied with a list of resource people available for visitations and interviews.

A coordinated system of educational field trips has been established for all schools on the elementary level. For example, in planning one field trip, each parent and teacher was given a brochure which outlined the trip and which included such information as places to be visited, cost per child, food and clothing requirements, trip time-schedule, bus pick-up and return schedule, and a list of games to be used by teachers to entertain pupils along the way.

A local television station has donated to the audio-visual department 15 minutes per week for the purpose of informing the community of programs offered at local community centers and of courses offered in adult education.

An extensive list of basic audio-visual materials required in new elementary schools is submitted to the school board by the audio-visual director. The board honors this list as basic instructional materials needed on the first day of school. A representative list of items required for a new elementary school follows:

Equipment

1	Motion picture projector
1	Tripod screen (70" x 70")
1	Tripod screen (50" x 50")
1	Screen for stage
1	Speaker (12")
1	Opaque projector with accessories
1	Slide projector (3¼ x 4¼)
2	Standard 10" all metal cabinets
2	Standard 12" all metal cabinets
2	Felt boards (24" x 26") with easels
2	Strip film holders
1	Combination slide-filmstrip projector
1	Tape recorder
1	Elementary microscope
7	Magnetic boards
7	Metal chart stands
4	Models of clock
1	Radio, AM and FM
4	Tool stands U/Z shelves
1	Case for slide outfit
7	Wall screens

Supplies

6	Recording tapes 1,200'
6	Recording tapes 600'
3	Rolls, splicing tape
3	Extra bulbs for each projector
2	Packages Stick Tite
2	Packages felt strips
60	Small magnets
1	Package cellophane and carbon paper
200	Etched glass
4	Lantern slide crayon sets
2	Rolls, binding tape
100	Plain lantern slide glass

Light Control
7 Classrooms

Materials
7 Filmstrips on health and safety
1 Set of *Songs of Safety*
4 Sets of filmstrips on people in various geographical locations
3 Sets of filmstrips on social attitudes
7 Sets of filmstrips on the seasons
1 Filmstrip on pets
32 Albums of 4 different sets on dance and play activities
11 Sets of 6 different types of reading and spelling filmstrips, drill cards
27 Sets of 7 different types of arithmetic aids
2 Sets each of the first four volumes in *Listen and Do Series*
9 Globes
21 Maps
3 Geographical charts

Almost all of the elementary school classrooms have light control for projected materials.

In this tax supported elementary-junior high audio-visual program, the per pupil cost, exclusive of salaries, for the 1957-1958 budget year was $1.86.

BUDGET SUMMARY

Category	Expenditure	
Supplies		
Bulbs, projection belts, film, reels, tapes, replacement parts, stamps		$ 500
Materials		
Films (100—junior high)	$ 5,000	
Filmstrips (400)	2,000	
Records (400)	800	
Tapes (140)	500	
Charts (1 set per bldg.)	1,000	
Photographs and photographic supplies	750	
Glass slides (2" x 2" and 3¼" x 4¼")	200	10,250
Professional Materials		
Audio-visual manuals, methods reference books, periodicals		100
Maintenance and Labor		2,000
Equipment		
Projectors—16mm (11)	$ 5,000	
Tape recorders (11)	1,500	
Public address systems (6 bldgs.)	1,500	
Stand microphones (7)	250	
Controlled readers, tachistoscopes, and materials	2,000	
Microprojectors and associate materials	500	
Light control opaque drapes (10 rooms)	1,000	11,750
Grand Total		$24.600

CASE STUDY 17

Location: Pacific States
Population of City: 43,000
Type: City school system
Student Population: 14,500
Number of Teachers Served: 626
Number of Schools Served: 36
AV Program Organized: 12 years
Unusual Expenditures: Equipping two new junior high schools with basic AV equipment and materials

AUDIO-VISUAL DIRECTOR SERVES AS MEMBER OF THE CURRICULUM PLANNING TEAM

As a member of the administrative and curriculum planning team, the audio-visual director locates, selects, adapts, and produces needed materials for the improvement of instruction. The use of these materials is encouraged by orientation programs for new teachers and by workshop sessions in equipment operation and in utilization and production of materials for the entire staff.

Each year the scope of the audio-visual program is broadened and the availability of instructional materials is increased. Materials available include motion picture films, filmstrips, slides, tapes, records, exhibits, models, a limited number of flat pictures, and charts. Each building is provided with basic equipment. Loan equipment, including microprojectors, public address systems, tape recorders, and phonographs and opaque, lantern slide, and overhead projectors, is available from the audio-visual department.

The audio-visual program is administered by a full-time director, aided by two clerical assistants. Technical service for the repair and maintenance of equipment is provided by local radio service repairmen and audio-visual dealers, and distribution of equipment and materials is carried on by the delivery service which functions for the school mail and cafeterias.

In each building, the program depends upon a building coordinator as a consultant for the improvement of instruction and upon the office secretary and the student operators for scheduling and projection service. No released time is given to the teachers who act as building coordinators in the elementary schools, but this responsibility is considered when assignments are made to other duties. Secondary school coordinators, when not school librarians, are given one period a day for audio-visual activities.

To aid in selecting materials for their classes, teachers are provided with a grade level or subject-matter listing of available instructional materials. In addition, a Library of Congress card catalog is maintained in each building. Frequent bulletins from the audio-visual department inform teachers of new materials and alert them to relevant radio and television programs.

Although some teachers place written orders for materials, most of their requests are telephoned to the audio-visual department by the school secretary or the building coordinator. Also, teachers are invited to visit the audio-visual department and make their selection. Deliveries are made daily to the secondary schools, biweekly to the large elementary schools, and weekly to the small suburban elementary schools.

The audio-visual department has found that the number of motion picture projectors required for each school is dependent upon the number of floors in the building as well as the number of students. One projector for each 300 students generally proves to be a good standard. A replacement program is underway which provides for replacement of motion picture projectors after 10 years of service. One phonograph is provided for each two classrooms, and one variable-speed phonograph for use in the physical education program is provided for each building. Carts are a necessity for the transportation of heavy equipment. Tape recorders, additional projectors, and screens are being provided gradually. It is planned that a minimum of half the classrooms will be darkened in each building. The parent-teacher associations have been helpful in the purchase of equipment and in the installation of darkening facilities.

In an expanding audio-visual program, it is necessary to plan toward the future. The facilities of the center for handling and storing materials will need to be expanded, and additional personnel must be added. As teachers become more interested and proficient in the production of materials for their own classes, space will be needed in each building for this activity as well as for storage of equipment and supplies. Increased electrical and light control facilities will make the teachers' use of audio-visual materials more efficient.

The basis of expenditures for the purchase of materials is sixty cents per enrolled pupil in grades 1-12. Approximately $8,000 is allocated to the audio-visual budget from the building fund for equipping the new junior high schools.

The support for this program comes from tax monies allocated to the audio-visual budget. The per pupil cost of $2.47 for the school year 1958-1959 is exclusive of equipping the new junior high schools and of salaries, except those of audio-visual assistants.

BUDGET SUMMARY

Category	Expenditure	
Salaries for Audio-Visual Assistants		
Office secretary	$ 2,440	
Office clerk	2,000	
Projectionists	150	$ 4,590
Contract Services		
Handy-man repair	$ 450	
Photographic assistance	100	
Equipment service and repair	1,500	2,050
Instructional Materials		
Filmstrips (360)	$ 2,150	
Slides (100)	50	
Phonograph records (50)	50	
Recording tapes	150	
Leased and revised films	400	
Rental and postage	500	3,300
Supplies		
Projection lamps	$ 700	
Photographic supplies	200	
Kardex blanks	100	
Catalog cards for AV materials	500	
Business forms	100	
Miscellaneous	200	1,800
Travel Expense		
Capital Outlay (Materials)		
Motion pictures (55)	$ 2,510	
Due on rent-to-purchase plan (films)	1,290	
Duplicate titles (films)	1,000	
Replacement titles (films)	800	
Adult vocational and education (films)	150	5,750
Capital Outlay (New Equipment)		
Motion picture projectors (5)	$ 2,275	
Filmstrip-slide projectors (7)	700	
Opaque projectors (7)	2,170	
Screens (22)	880	
Carts (19)	570	
Record players (28)	1,970	
P.A.'s (portable) (3)	775	
Tape recorders (6)	720	
Miscellaneous	150	10,210
Capital Outlay (Replacement Equipment)		
Motion picture projectors (7)	$ 2,625	
Filmstrip-slide projector	100	2,725
Capital Outlay (Darkening)		
Shades (4 rooms)	$ 260	
Drapes (33 rooms)	4,950	5,210
Grand Total		$35,805

CASE STUDY 18

Location: South Atlantic States
Population of City: 110,000
Type: City school system
Student Population: 19,000
Number of Teachers Served: 750
Number of Schools Served: 34
AV Program Organized: 12 years
Unusual Expenditures: None

STUDENT TEACHERS ARE ACTIVE IN AUDIO-VISUAL IN-SERVICE TRAINING PROGRAM

All student teachers who are assigned to this school system for their student teaching experience and all new teachers participate in an in-service training program developed by the audio-visual department. The sessions for student teachers are held on the college campus prior to the student teaching assignment in one of the schools in the system. Thus oriented, these student teachers are ready to make intelligent use of a variety of materials and equipment.

To facilitate greater use of audio-visual materials, each school is supplied with a master catalog, listing, by title, all of the audio-visual materials available in the school system. All materials except motion pictures have been decentralized and are housed in the libraries of the individual schools ready for use on short notice. Motion pictures are delivered to the schools twice a week from the audio-visual department. All but three of the schools have librarians who also serve as audio-visual coordinators.

Each school is allotted its own funds for purchasing the audio-visual materials and equipment it desires for its school audio-visual center. The system's audio-visual director assists in the selection of materials. If the cost of such equipment is more than $100, the school may apply, once a year, for as much as an additional $100.

All new classrooms are equipped with venetian blinds and wall screens, and each new building is furnished with motion picture projectors, filmstrip projectors, tape recorders, record players, and other basic equipment purchased from the school system's capital outlay budget.

This city school system's audio-visual program is under the guidance of a full-time director and has been in existence for 12 years. Because of its nature and scope, the staff also includes a secretary to the director, a booking clerk, a rewind clerk, and a deliveryman. A full-time assistant to the director is needed to work with the student projectionist club program.

Repair and maintenance of all audio-visual equipment is done by the central school repair department under the supervision of the superintendent of buildings and maintenance. Cost of all parts and labor is absorbed by the maintenance budget and is not reflected in the audio-visual budget.

This school system, like many others the country over, receives gifts from the P.T.A., civic clubs, and similar organizations. This year, for example, one school in the system received $600 to purchase anything it wished, but with the recommendation that first consideration be given to audio-visual materials.

All monies allocated to the audio-visual department are from tax funds. The total expenditures shown in the Budget Summary would be substantially greater if such items as transportation, delivery of materials, audio-visual equipment for new buildings, and repair and maintenance of equipment were included. Excluding these costs, as well as salaries, the per pupil expenditure for 1958-1959 was $2.40.

BUDGET SUMMARY

Category	**Expenditure**	
Film Rentals		$ 500
Postage and Supplies		500
Department Operation		1,000
Radio Station		750
Film Repairs		
Footage replacement	$ 1,500	
Print replacement	1,500	3,000
Film Contracts		6,873
Film Purchases		
Out-of-date (25)	$ 500	
Additional	1,000	
Science (elementary)	7,500	9,000
Office Equipment		
Replacement	$ 500	
Demonstration	1,000	
Film racks	750	2,250
Replacement AV Equipment		
Filmstrip projectors (13)	$ 780	
Record players (36)	1,517	
Tape recorders (17)	2,157	4,454
Additional AV Equipment		
Motion picture projectors (17)	$ 6,715	
Filmstrip projectors (16)	1,120	
Opaque projectors (9)	2,160	
Record players (95)	4,998	
Tape recorders (11)	1,616	
Bioscopes (3)	600	17,209
Grand Total		$45,536

CASE STUDY 19

Location: South Central States
Population of City: 200,000
Type: City school system
Student Population: 20,000
Number of Teachers Served: 841
Number of Schools Served: 36
AV Program Organized: 8 years
Unusual Expenditures: None

SCHOOL SYSTEM HAS OUTGROWN PRESENT AUDIO-VISUAL PROGRAM

During the past five years this school system has undergone a tremendous expansion. The number of teachers has doubled. A building program has produced six new buildings and additions to six others; however, needs for buildings and additions still exist. Inter-communication systems and a few items of audio-visual equipment are included in the contract price of these new buildings, but room darkening facilities and most of the projection equipment have come from the audio-visual budget. Many more kinds of audio-visual equipment should have been included in the new building contracts. Consequently, items that should be replaced are having to be used beyond their normal service period and are being kept in operation because of the heavy demand and the lack of immediate funds for additional equipment.

A full-time audio-visual director is in charge of the program. He has a clerical person to act as secretary-librarian in the central office. Teachers who function as building coordinators in the secondary schools receive one hour per day for this duty. If it is necessary for them to teach that period, they receive additional salary. In some grade schools, coordinators are released from such duties as playground supervision.

Each school building is provided with a basic set of audio-visual equipment. These sets for both elementary and secondary schools are enumerated in the Budget Summary.

A film library of 350 prints is maintained in the central office and daily delivery to the schools is provided. A number of films are rented by the center, and each school has monies which may be used for ordering films directly from a film rental library.

Expenditures for this program come from tax monies. The per pupil cost for 1958-1959 was $1.21, excluding salaries and monies for film rentals by individual schools.

BUDGET SUMMARY

Category	Expenditure	
Film and Filmstrips		
Purchase, inspection, and maintenance		$ 8,000
Film Rental		575
Travel		400
Repair and Maintenance		2,950
Capital Outlay		
Darkening facilities	$ 1,296	
Motion picture projectors (4)	1,600	
Slide-filmstrip projectors (3)	270	
Record players and screens	500	
Basic set for one high school, including:	4,500	
Motion picture projectors (2)		
Slide-filmstrip projectors (3)		
Projection tables (3)		
Rewind set		
Projection screens (4)		
Film and filmstrip cabinet		
Empty film reels (12)		
Record players with extra speaker (4)		
Tape recorder		
Microphones (3)		
Press camera		
Enlarger		
Developing and processing equipment		
Basic set for one high school	2,500	
($2,000 saved by using equipment from old building)		
Basic set for two elementary schools, including:	1,600	
Motion picture projector		
Slide-filmstrip projectors (2)		
Projector tables (2)		
Opaque projector		
Record players (2)		
Tape recorder		
Empty film reels (8)		12,266
Grand Total		$24,191

CASE STUDY 20

Location: Mountain States
Population of City: 110,000
Type: City school system
Student Population: 21,500
Number of Teachers Served: 768
Number of Schools Served: 35
AV Program Organized: 10 years
Unusual Expenditures: None

SCHOOL SYSTEM USES STANDARD RECEIPT AND EXPENDITURE ACCOUNTING SYSTEM

Recording of financial data, accounting of school funds, budgeting, cost accounting, and reporting of public school finances have always been difficult. The U.S. Office of Education, recognizing these difficulties, has adopted a standard receipt and expenditure accounting system set forth in *Financial Accounting for Local and State School Systems, State Educational Records and Reports Series: Handbook II.* Some school superintendents recognize the importance of a standard accounting system as a means of improving and making more reliable their financial reporting. Use of this system makes possible comparisons of their school expenditures with those of other school systems and provides basic information for policy determination. This accounting system is being used by the school system of which this audio-visual department is a part.

Money is allotted to each school from the audio-visual budget for filmstrips, records, maps, and globes to remain in each building. Each building is originally provided with a basic set of audio-visual equipment. As the need arises, additional equipment and replacements are purchased with audio-visual departmental funds. Supplies are made available to all schools. Audio-visual equipment for all new buildings, including two new high schools and one new elementary school, is purchased out of bond funds. Money for audio-visual equipment in these buildings is as follows:

Projectors and tape recorders	$7,[illegible]50
Maps and globes	2,500
Other	3,185

Building coordinators in the elementary and secondary schools act as a liaison between the teachers and the audio-visual department staff. Although they do not receive additional pay, most of them do receive released time, and the secondary school coordinators receive a mileage allowance.

Separate catalogs, listing a variety of audio-visual materials, are prepared for each grade level in the elementary schools. To help assure proper utilization, teachers are requested to use only those films listed in the catalog for their particular grade level. These film groupings have been prepared by teacher committees who have attempted to correlate them with the curriculum as closely as possible. Film deliveries are made twice a week with a pick-up on Friday by truck drivers who are normally assigned to the maintenance crew.

The professional services of the audio-visual coordinator are shared with a junior college. A full-time secretary assists him with his responsibilities in the public school system program.

The audio-visual program is financed by tax monies, and the major portion is specifically allocated to the audio-visual budget. Exclusive of salaries and the amount expended for audio-visual equipment in new buildings, $1.83 was spent per pupil for the 1959 calendar year. (The numbers appearing to the left of the items in the following Budget Summary refer to account numbers in the previously mentioned government publication.)

BUDGET SUMMARY

AUDIO-VISUAL BUDGET

Account	Expenditure
200 Series—Instruction	
230—School libraries and audio-visual materials	
233—Audio-visual materials	
233.1—Rentals	$ 4,750
233.2—Supplies (films, filmstrips, lamps)	7,500
233.3—Maps and globes (desk size)	2,500
233.4—Recordings	3,050
250—Other expenses for instruction	
251.31—Audio-visual coordinator (office supplies)	200
253—Car allowance	
253.31—Audio-visual coordinator	150
253.4—Other instructional staff	
253.42—Secondary audio-visual coordinators	225
254—Miscellaneous expenses (rental of equipment)	
254.31—Audio-visual (automatic film inspector)	200
700 Series—Maintenance of Plant	
720—Contracted services for maintenance of plant	
723.6—Repair audio-visual equipment	1,250
730—Replacement of equipment	
731.4—Audio-visual equipment (complete item)	3,945
733—Salaries for replacement of equipment (school maintenance crew)	50
740—Other expenses for maintenance of plant	
743.5—Repairing other equipment	
743.53—Audio-visual (parts)	500

1200 Series—Capital Outlay	
1230—Equipment	
1234—Equipment for instruction (bldg. additions)	
1234.5—Projectors and tape recorders	2,000
1234.51—Maps and globes	800
1234.52—Other (screens, previewers)	1,220
1236—Equipment for instruction (old bldgs.)	
1236.5—Projectors and tape recorders	1,800
1236.51—Maps and globes	2,000
1236.52—Other	2,155
Total Audio-Visual Budget	$34,295
MONIES OTHER THAN AUDIO-VISUAL BUDGET	
Tax money used for audio-visual program but not specifically allocated to the audio-visual budget	5,000
Grand Total	$39,295

CASE STUDY 21

Location: North Central States
Population of City: 131,770
Type: City school system
Student Population: 23,000
Number of Teachers Served: 850
Number of Schools Served: 27
AV Program Organized: 12 years
Unusual Expenditures: Radio station and school sound systems

EDUCATIONAL RADIO PROGRAMS ARE INTEGRAL PART OF AUDIO-VISUAL PROGRAM

Educational radio programs, originating from the school system's radio station, are an integral part of this audio-visual program. The audio-visual center serves as a clearing house for school-produced programs aired over the local radio and television stations. Many school radio programs for use by the local commercial stations are produced at the center and delivered as a package to the station. A weekly program schedule is sent to each teacher. Included with this schedule is a utilization form which the director uses to evaluate and improve the programs to follow. The radio station's primary function is to aid classroom instruction; however, it is also used to broadcast good music to the cafeteria and corridors during the noon hour.

The center is responsible for the central sound system in each of the individual schools. These sound systems are designed to carry radio, magnetic tape, phonograph, and live programs to any room in the school.

The audio-visual director is responsible to the assistant superintendent in charge of curriculum and actively participates in curriculum committee meetings. He meets regularly with the administrative group and also with the school principals relative to general administrative problems as well as audio-visual problems. Any phase of the audio-visual program that relates to special departments of instruction is cleared with the proper director or supervisor.

Responsibility for the over-all direction of the audio-visual program is given to the full-time director. He prepares budget requests and works with the curriculum department to insure that materials are closely correlated with the curriculum. Assisting the director are two full-time assistants, one in charge of radio programming and the other responsible for equipment. A full-time clerk, who has a full-time assistant and one part-time student assistant, is responsible for the operation of the film library. A full-time person is employed to inspect films, filmstrips, and tapes.

To assist the superintendent, principals, and supervisors in interpreting the school to civic groups, the audio-visual center produces appropriate audio-visual materials. Audio-visual personnel are also available as a part of the public service function of the center to consult with program directors of the P.T.A., service clubs, and church and study groups concerning utilization and production problems.

Individual teachers showing exceptional abilities in utilizing certain audio-visual materials are given special help and encouragement to develop their techniques further. The enthusiasm displayed by these teachers soon spreads to others.

Special attention is given to teacher-student-produced materials, since much is gained by the student and the teacher in active participation in the production of materials. Carefully supervised, other groups are willing to use the materials and frequently are anxious to produce materials of their own. Many teachers produce slides, tapes, filmstrips, models, dioramas, and radio scripts with the help and encouragement given by the director.

Three in-service courses—radio, beginning audio-visual techniques, and an advanced workshop in audio-visual production—are conducted by audio-visual center personnel. These classes meet for 10 two-hour sessions the first semester of each year. Other meetings are scheduled during the year for groups with special needs, and these meetings generally have to do with curriculum groups.

The audio-visual center library includes approximately 675 films, over 1,000 filmstrips, 400 tapes, still pictures, slide sets, overhead transparency materials, tachistoscopic aids, and flannelgraph materials. These materials are delivered daily to all schools, and many orders are handled by telephone and delivered the following day. The center purchases, rents, or secures for preview any materials suggested by teachers, department heads, or curriculum committees. The center passes on technical qualities of all materials and determines whether they can be used with existing equipment. The final decision to purchase materials for the library rests with the director; however, this decision is based on an evaluation report from at least three teachers who have used the materials in an actual classroom situation at the level for which they are designed. Duplicate titles for films, other than seasonal films, are added to the film library when 30 or more requests are made for any given title during the school year.

Responsibility for the purchase of equipment is given to the center personnel, a plan which permits standardization of function and performance and which aids in maintenance and utilization. Inventory and maintenance records are kept which provide pertinent information for trade-ins as well as for insurance purposes. Motion picture projectors, tape recorders, record players, and radios are replaced after seven year's use. Filmstrip and slide projectors are replaced after 10 years. Insurance depreciation is based on these replacement schedules. A second motion picture projector is provided for each elementary school when the school's film bookings exceed 300, and a third projector is provided when bookings exceed 700. A slightly lower booking schedule is necessary for the secondary school. All repair of audio-visual equipment is done by local audio-visual dealers from whom the equipment was purchased, and, in most cases, repair is accomplished within 48 hours.

Financial support for this school system's audio-visual program comes from tax funds regularly apportioned to the audio-visual budget or from budgets other than audio-visual, in which case the audio-visual director recommends the expenditure and approves the materials for which it is spent. Exclusive of salaries, $3.63 per pupil was expended for the 1958-1959 audio-visual program.

BUDGET SUMMARY

AUDIO-VISUAL BUDGET

Category	Expenditure	
Supplies		
Electronics (tubes, cleaners, decals)	$ 179	
Office supplies (mimeograph, ink, postage)	473	
Insurance (parcel post)	144	
Projector supplies (lamps, tubes, belts)	590	
Photographic supplies (paper, films, chemicals)	200	
Purchase of 72 filmstrips	342	
Graphic supplies (dry mount tissue, cement)	277	
Recording supplies (tapes, discs, needles)	788	
New films (3)	275	
Film inspection (professional inspection of 275 films)	525	
Magazines	40	
Phonograph records	238	
Publishing center catalogs	428	$4,499
Repair and Replacement		
Repairs and replacement (labor and parts—no equipment. This covers 15 central sound systems, over 300 record players, 54 motion picture projectors, 72 tape recorders, and other miscellaneous equipment.)	$ 3,929	
Tape recorders traded in (10)	1,299	
Slide and filmstrip projectors traded in (4)	320	
Replacement of movie screens	365	
Replacement of old record players	208	
Motion picture projectors traded in (10)	2,766	
Radios traded in and replaced	139	9,026

Capital Outlay		
Central sound systems (expanded in size)	$ 453	
Additional projection lenses	65	
Overhead and opaque projectors	813	
Electronics (test equipment, microphones)	1,404	
Tape recorders	404	
Motion picture projectors	995	
Radio receivers	1,148	
Photographic equipment	85	
Record players	265	
Filmstrip and slide projectors	237	
Additions to the radio transmitter	102	5,971
Fees		
Purchase of films (22)	$ 2,455	
Purchase of filmstrips (22)	110	
Subscription to publications	10	
Purchase magnetic recording tapes	177	
Film rental	502	
Supplies for graphic department	86	
Phonograph records	20	
Slides (2" x 2" and 3¼" x 4")	84	
Overhead (paid to business office)	94	3,538
Total Audio-Visual Budget		$23,034

MONIES OTHER THAN AUDIO-VISUAL BUDGET

Monies from budgets other than audio-visual, but the director recommends the expenditure and approves the materials for which it is spent

Sound systems—new buildings	$22,000	
Sound systems—old buildings	6,390	
Gifts from P.T.A.'s for sound systems in old buildings	2,000	
Gifts from P.T.A.'s (record players, TV's)	1,200	
Darkening (4 new buildings and 3 old buildings)	15,334	
Insurance (1/3 of $2,350)	783	
Delivery of films	2,500	
Equipment built at shops	1,000	
Radio Station		
Transmitter	3,280	
Antenna	795	
Monitor (frequency and modulation)	1,577	
Control room (equipment)	1,488	
Materials and labor for building alterations	2,160	
Total Monies Other Than AV Budget		60,507
Grand Total		$83.541

CASE STUDY 22

Location: Pacific States
Population of City: 185,000
Type: City school system
Student Population: 32,000
Number of Teachers Served: 1,350
Number of Schools Served: 60
AV Program Organized: 20 years
Unusual Expenditures: Controlled reader program

EXPANDING AUDIO-VISUAL PROGRAM CREATES NEW NEEDS FOR ADEQUATE IN-SERVICE TEACHER TRAINING

The need for adequate in-service teacher training becomes more crucial as the audio-visual program broadens its services. One important aspect of the total in-service training program is bringing local school problems and administrative decisions and philosophies to the attention of teachers. A weekly session of all administrators and superintendents, including the full-time audio-visual director, allows for an exchange of ideas on current school problems. The resulting decisions and philosophy affecting the audio-visual program are disseminated to the audio-visual building coordinators in periodic meetings. The building coordinators, in turn, pass pertinent information on to the teachers at building meetings. In addition to this face-to-face communication, weekly bulletins are issued by the audio-visual staff. Teachers are encouraged to take advanced audio-visual work through university extension courses and to participate in an audio-visual workshop at the beginning of each school year. In-service training is further implemented by personal contacts with audio-visual staff members.

Audio-visual center staff members work closely with personnel from the curriculum division in purchasing reading equipment and materials and in providing items for the newly installed language laboratory. The center also purchases science equipment and materials for the elementary schools. Although the purchasing of equipment and materials is done by the audio-visual center, teachers and administrators are consulted in the selection. A maintenance division is an integral part of the center and is responsible for servicing all audio-visual equipment.

Each teacher in the school system is provided with a catalog and supplements. These describe and explain the materials, suggest ways of integrating them into units of study, and indicate the recommended grade level. The audio-visual center, making deliveries to each school twice weekly, distributes projected materials, recordings, transcriptions, exhibits, charts, maps, and globes.

One of the most important audio-visual activities is the coordination of community resources with the instructional program. The center schedules and provides transportation for seven to eight hundred school journeys a year. It also maintains a list of resource people in the community and schedules their classroom visitations.

During financial campaigns, the audio-visual center produces appropriate photographic and recorded materials. It also serves the administration by microfilming the minutes of school board meetings, student and personnel records, and financial reports. Members of the staff assist in planning facilities for new and old school buildings.

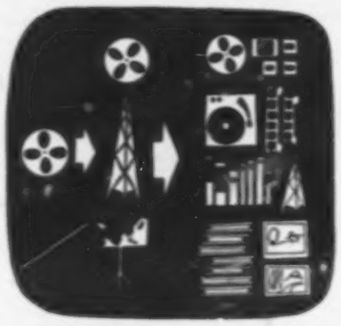
In this system, the school population has increased 12 per cent and the distribution of audio-visual materials has increased 656 per cent during the past 12 years. The increase in distribution has been plotted for the past few years, and the budget is based on this increase. Funds for new buildings include light control facilities which are not included in the audio-visual budget. Monies in the budget come from tax funds with a per pupil expenditure of $1.92 for 1958-1959, exclusive of salaries.

BUDGET SUMMARY

Category	Expenditure
Office supplies	$ 220
Materials	28,090
Science supplies	1,100
Maintenance parts and supplies	4,263
Light control (for old buildings)	5,500
Microfilm	1,000
Reading equipment	5,000
Departmental equipment	1,000
Equipment	15,337
Grand Total	$61,510

CASE STUDY 23

Location: Middle Atlantic States
Population of City: 350,000
Type: City school system
Student Population: 40,000
Number of Teachers Served: 1,900
Number of Schools Served: 51
AV Program Organized: 27 years
Unusual Expenditures: Starting this year, annual expenditures to implement plans for educational TV



AUDIO-VISUAL PROGRAM HAS EVOLVED THROUGH THREE STAGES

This well-established audio-visual program has evolved through several phases: from Film Library to Department of Visual and Radio Education, and finally to its present organization as the Department of Instructional Materials. The department is concerned with audio-visual equipment and with all materials of instruction in which there is educational content—films, filmstrips, records, books, maps and charts, and radio and television programs. Since placing responsibility for all instructional materials with one department, budget appropriations for all materials have substantially increased.

The department has worked out guiding principles for the selection of all materials of instruction, so that evaluations are made by teachers on the basis of their use of materials, and decisions are always group decisions. Motion picture films are distributed to all schools from a central film collection by a twice-a-week delivery system. Museum and art gallery materials are also distributed from a central source. All other instructional materials, including records and filmstrips, are purchased from selected lists by each school through regularly appropriated board of education funds.

This school system has been experimenting for the past three years with the idea that professional personnel can perform professional responsibilities more effectively when provided with clerical assistance. In three high schools, full-time civil service clerical assistants have replaced the audio-visual coordinators who have returned to full-time teaching. The department heads, whose primary responsibilities are the improvement and supervision of instruction, have assumed the professional responsibilities of the building coordinators. Consultation on audio-visual problems is available to department heads and teachers from the audio-visual department. The experiment seems to be showing that better results are being obtained at a lower cost when professional personnel are relieved of non-professional duties.

In preparing the 1958-1959 budget request, a systematic study was made of audio-visual equipment throughout the school system. The following replacement schedule, based on inventory and maintenance records for the past 10 years, was accepted in principle:

Sound motion picture projectors	Replacement in 5-10 years
Filmstrip projectors	Replacement when obsolete
Tape recorders	Replacement in 5-7 years
Radios	Replacement on a 10-year schedule

In 1956 a five-year program was undertaken to bring maps and globes in all classrooms up to a minimum standard recommended by teacher committees. This five-year program is now so well advanced that in four and one half years, it is nearly achieved, thus decreasing the amount requested for this category in this year's budget.

The per pupil expenditure for the audio-visual program for the 1958-1959 school year was $3.56 including salaries and $2.40 excluding salaries. This money is allotted from tax monies regularly allocated to the school system's audio-visual program.

BUDGET SUMMARY

Category	Expenditure
Salaries	$ 46,417
Director	
Senior stenographer	
Senior typist	
Typist	
Student clerk	
Radio personnel	
TV personnel	
Audio-visual repairmen	
Chauffeur	
Student laborer	
Radio School of the Air (production other than salaries)	7,000
Educational Television (production other than salaries)	15,000
AV Equipment Repair (other than salaries)	6,000
Instructional Equipment Replacement	20,000
Motion picture projectors (22 of 111)	
Tape recorders (8 of 63)	
Radios (75 of 346)	
Record players (62 of 275)	
Projectors—2 x 2 (20 of 131)	
Opaque and overhead projectors (0 of 10)	
Maps and Charts (for 41 elementary and 9 secondary schools)	10,000

New Equipment	8,000
Motion picture projectors (5)	
Tape recorders (10)	
Radios (30)	
Record players (20)	
Projectors—2 x 2 (10)	
Opaque and overhead projectors (7)	
Audio-Visual Materials	30,000
Ten per cent replacement of present film inventory (1,700 films valued at $150,000), new titles, filmstrips, and records	
Grand Total	$ 142.417

CASE STUDY 24

Location: South Central States
Population of City: 400,000
Type: City school system
Student Population: 56,000
Number of Teachers Served: 1,908
Number of Schools Served: 95
AV Program Organized: 15 years
Unusual Expenditures: Television purchase and rental

SCHOOL SYSTEM HAS DEVELOPED UNIFIED MATERIALS CENTER

During the past 15 years, a unified materials center has been developed by grouping the services and supervision of activities relating to instructional materials. The principal divisions are the audio-visual library and equipment facilities, the curriculum and professional library, the school library service, the textbook center, and the in-service program including a cooperative graduate-study program with two state universities.

These material services and all other facilities for instruction are under the direction of the curriculum office. These facilities are so interrelated that to describe any department on an individual basis would fail to show the team work which contributes to the instructional program of this school system. Each division of the materials center is under the supervision of an individual who has completed his master's degree, with special training in the particular area involved.

The audio-visual division devotes a major portion of its time to serving the 95 schools of the system with educational motion pictures, filmstrips, and other materials for projection. Films are used at the rate of approximately 900 per week. Delivery is made daily to secondary schools and on Monday, Wednesday, and Friday to elementary schools. Included in the audio-visual program is a magnetic tape-recording service, still and motion picture photographic services, and a supervisory and selection service relative to the purchase of audio-visual materials and equipment. An advisory service is also provided for planning and establishing audio-visual facilities in the various schools.

For the past three years, teaching by television has assumed a most important place in the instructional program. Although television teaching is an integral part of the school's audio-visual program, it is administered by the curriculum office with the audio-visual division supplying the teaching materials. Instructional programs are telecast over an educational VHF channel and over a school-owned UHF channel. Experimental television classes are emphasizing a teaching-team approach to large classes. Since the school system participates in the Ford Foundation project, certain budget items are paid from Foundation funds.

The audio-visual program is financed largely from tax funds, with the major portion being specifically allocated to the school system's audio-visual budget. The 1958-1959 per pupil expenditure, exclusive of salaries, was $2.07.

BUDGET SUMMARY

AUDIO-VISUAL BUDGET

Category	Expenditure	
Supplies		
AV department (reels, tapes, film)		$ 4,260
Repairs		
AV equipment (projectors, recorders)	$ 3,600	
TV sets, radios, PA systems	10,200	13,800
Equipment		
AV departmental equipment and furniture	$ 4,800	
AV equipment for schools	4,250	
Films and filmstrips	17,040	
TV sets	5,000	31,090
TV Station Expense		41,000
Total Audio-Visual Budget		$ 90,150
MONIES OTHER THAN AUDIO-VISUAL BUDGET		
AV equipment for individual schools	$25,000	
Miscellaneous expenses	1,000	
Total Monies Other Than AV Budget		26,000
Grand Total		$116,150

CASE STUDY 25

Location: Pacific States
Population of County: 556,808
Type: County school system
Student Population: 84,987
Number of Teachers Served: 3,600
Number of Schools Served: 150 buildings, 48 districts
AV Program Organized: 23 years
Unusual Expenditures: None

STATE PROVIDES FINANCIAL SUPPORT FOR COUNTY AUDIO-VISUAL PROGRAMS

The state, in which this school system is located, offers financial support, on a matching fund basis, to county audio-visual programs to help them meet the instructional needs of individual school communities. This support covers operating costs, such as salaries, the purchase of equipment on the county level, and the cost of distributing materials to the districts within the county. All school districts in this county program, except those contracting for partial film service and one large independent city school district (see Case Study 26), contract with the county on the basis of $1.50 per student for audio-visual services.

The money received from the districts is used for the purchase of materials which are impractical for local school districts to purchase independently. These materials are made available to all schools subscribing to the county program.

The three major services provided by the county audio-visual program are distribution, technical assistance, and utilization.

Materials are previewed jointly by appropriate district and county office staff members. The selected materials, such as films, filmstrips, slides, charts, maps, models, dioramas, records, art prints, and exhibits, are purchased and cataloged. Teachers are provided with catalogs and a biweekly brochure to keep them informed of the wide range of instructional materials available. These materials are requisitioned by the teacher and are booked, packaged, and distributed by the county audio-visual program. Weekly delivery and pick-up service by truck is provided.

Two types of workshops are held by the county, one to aid district technicians, bus drivers, and maintenance men in servicing equipment, and the other to instruct students and teachers in the use of equipment. The county audio-visual program also has a complete stock of equipment which can be loaned to districts on a temporary, experimental, or emergency basis. Graphic and photographic services for the production of instructional materials for use in the districts is provided by the county. In this way, specific material necessary to meet special needs is made available.

County-wide conferences are held to aid the audio-visual building coordinators in administering programs in their schools. The full-time director and his county staff cooperate with the districts on all types of in-service education programs, demonstrations, and workshops designed to keep teachers abreast of constantly changing conditions in the audio-visual field.

The county audio-visual program offers other services to the schools, such as making district surveys, planning and developing materials for district bond and tax elections, assisting with district preschool and institute programs, working with district and county staffs on audio-visual materials as they relate to course-of-study development, and helping interpret the school program to the community.

Although the county program provides a wide range of services, local school districts have their own audio-visual programs and provide services, supplies, and equipment in cases where there is a constant or immediate demand. Thus, decentralization of the county program provides the flexibility required by district superintendents to meet the needs and problems of their respective districts and yet retain equalization of education between rich and poor, large and small districts. In this way, district superintendents are meeting the responsibility of providing a rich instructional environment within their school systems. The State Legislature stated that it considered the coordination and equalization of this program the greatest continuing need to be met through the county service program.

The county described here has a total of 51 school districts, of which six are city districts. County audio-visual program personnel serve all districts in an advisory, consultant capacity and provide material to those contracting for services. Of the six city districts, four have their own independent audio-visual programs. However, in each of these cases, experience has shown that it is economical to supplement their programs by contracting with the county office for a partial film service. The program for this county has been strengthened through continuing cooperation between the districts and the county office. The school districts also have audio-visual budgets with which they purchase and maintain their equipment and buy low cost, often-used materials, such as records, filmstrips, or study prints.

Expansion of the county graphic production area is anticipated if approval is received under Title III of the National Defense Education Act of 1958.

The per pupil cost of this tax supported county program, excluding partial film contract services for the 1958-1959 school year, was $2.39 with salaries and $1.43 without.

BUDGET SUMMARY

Category	**Expenditure**
Professional Salaries	$ 29,382
Clerical Salaries	52,088
Transportation	
Trucks (3), Cars (2)	4,551
Publications	
Catalogs	1,542
Replacement of Equipment	934
Operating Expenses	
Photo supplies, tags, packages, wrapping, paint	5,530
Equipment	
For staff use and emergency loan and capital outlay items such as film booking equipment	8,032
Audio-Visual Materials	
Motion pictures, filmstrips, models, exhibits, recordings, art prints, study prints, maps, charts	101,000
Grand Total	$ 203,059

CASE STUDY 26

Location: Pacific States
Population of City: 550,000
Type: City school system
Student Population: 100,000
Number of Teachers Served: 3,436
Number of Schools Served: 115
AV Program Organized: 30 years
Unusual Expenditures: None

VARIETY OF AUDIO-VISUAL MATERIALS MEETS INDIVIDUAL STUDENT NEEDS AND TEACHER PREFERENCES

This audio-visual department provides a wide latitude of choice in available materials to meet individual needs of students and preferences of teachers. These materials include films, filmstrips, records, art pictures, study prints, exhibits, dioramas, slide sets, stereograph sets, rolled charts, maps, and soundstrips. Teachers are encouraged to come to the department and make their own selections. Because this is not always possible, the department provides (1) a master catalog, (2) unit outlines containing bibliographies of recommended materials, and (3) monthly newsletters to aid teachers in the selection of the proper materials. Deliveries are made twice weekly by department trucks.

This city school system operates one of the independent audio-visual programs within the county described in Case Study 25. The success of the program is attributed to the close functional relationship and coordination of audio-visual materials with the curriculum content and objectives and with the various services the program renders to the schools. The program has received excellent financial support from the board of education because it has been demonstrated that the financial aid given has been returned in terms of educational values through the effective use of audio-visual materials in the classroom. The broad and centralized program of audio-visual materials and services offered to teachers has resulted in increased administrative support of the department.

Orientation programs for the new teacher, training sessions in equipment operation, and the production of special materials are a part of the services offered by the department. The board of education has also called on the department to assist in presenting information to the community when major bond issues have come up for a vote. The department's long-range planning and its development of films, campaign literature, and visualized presentations have been very helpful in obtaining the last three major bond issues.

The full-time director has 27 trained personnel who assist him in carrying forward the school system's audio-visual program. This personnel includes one trained assistant supervisor for elementary schools and one for secondary schools, both of whom are available to advise and assist teachers in the selection and use of appropriate materials. The department's staff consists of the following:

No. employed	Position description	Certificated
1	Director	x
1	Assistant director—secondary	x
1	Assistant supervisor—elementary	x
		Classified
1	Administrative assistant	x
2	Secretaries	x
2	Artist-illustrators	x
1	Art assistant	x
1	Photographer	x
1	Photographic lab technician	x
1	Cataloger	x
2	Cataloging clerks	x
1	Chief distribution clerk	x
2	Distribution clerks	x
1	Senior film inspector	x
3	Film inspection clerks	x
3	Film distribution clerks	x
1	Equipment maintenance and wrapping clerk	x
3	Truck drivers	x
27	Total regular positions	
3	Student helpers 1 32 hours per week 2 4 hours per day	
2	Part-time truck delivery drivers for night delivery of films	

This program has built up a pool of circulating audio-visual materials made possible by annual application of a budget formula which was $1.00 per pupil for many years, is $1.15 this year, and will increase to $1.25 per pupil next year. Schools within the district have individual supply budgets for the purchase of special materials they wish to have permanently in their buildings. Equipment for new buildings and room darkening facilities are covered by the school system's capital outlay funds. These funds are used to replace and purchase equipment to meet schedule formulas.

The school system maintains a central duplicating service as well as a system-wide maintenance division and electric shop where the audio-visual department can get needed and expert service.

Plans are being formulated to enrich this system's inventory of films and filmstrips in the science, mathematics, and foreign language areas under Title III of the National Defense Education Act of 1958.

The audio-visual program is financed by tax monies from local, state, and federal sources. Preparation of the budget, direction of expenditures, and control of all equipment and materials are the responsibilities of the director subject to the controls exercised by the business division and required by law. The per pupil expenditure for the 1958-1959 school year was $2.07 exclusive of: (1) salaries; (2) the individual school's supply budget (phonograph records, and other special items which it wishes to keep permanently); (3) P.T.A. gift equipment (estimated at $1,500); and (4) room darkening equipment and public address systems in new buildings. The per pupil expenditure was $3.45 when salaries were included.

BUDGET SUMMARY

AUDIO-VISUAL BUDGET

Category	**Expenditure**	
Production and Operation		
Supplies (art and photo)	$ 7,500	
Cataloging and processing	1,600	
Wrapping and distribution	1,750	
Film repair and inspection	1,250	
Office supplies and postage	1,000	
Spare parts (tapes, reels, lamps)	1,000	$ 14,100
Films		
Leases and rentals	$ 2,800	
Replacement (310 prints)	43,400	
Duplicate and new titles (310 prints)	43,400	89,600
Materials		
Graphic materials	$ 5,000	
Filmstrips	4,500	
Records	3,000	
Exhibits and models	900	13,400
Total Audio-Visual Budget		$117,100

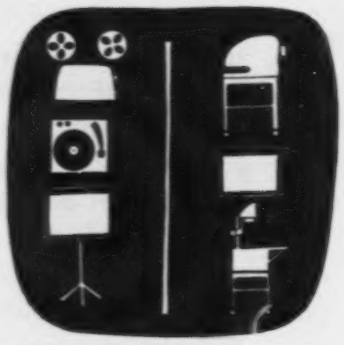
MONIES OTHER THAN AUDIO-VISUAL BUDGET

These expenditures are managed by the director but are not considered part of his general operating expenses

Salaries		
Administration and supervision	$ 31,728	
Clerks, technicians, messengers, and central and part-time student help	106,189	$137,917
Duplication Services		
Catalogs, bulletins, and special forms		2,400
Room Darkening and Wall Screens for 300 Rooms		42,500
AV Equipment		40,000
Maintenance of Equipment		5,000
Total Monies Other Than AV Budget		$227,817
Grand Total		$344,917

CASE STUDY 27

Location: South Atlantic States
Population of County: 495,000
Type: County school system
Student Population: 147,000
Number of Teachers Served: 5,739
Number of Schools Served: 167
AV Program Organized: 22 years
Unusual Expenditures: None



COUNTY SCHOOL ADMINISTRATION APPROVES "INITIAL" AND "DESIRABLE-ADDITIONAL" AUDIO-VISUAL EQUIPMENT FOR EACH BUILDING

To equalize and strengthen audio-visual facilities in each of its schools, this county administration has established an approved list of "initial" and "desirable-additional" audio-visual equipment to be located in each building. The lists are primarily for new schools with initial items being purchased and placed in each new school building in time for its opening. The desirable-additional items may be purchased at the discretion of the individual school from tax funds allotted to that school annually. Older schools, making changes and additions to their equipment as part of a long-range plan, may purchase any of the equipment from either list with tax funds allocated to them. Specifications for all approved items of equipment are developed and kept up-to-date in the purchasing department and are approved by the board of public instruction. Items not on these lists but desired by a school must be approved by the appropriate administrative official.

Audio-visual equipment purchased from the approved lists is marked to identify it for priority maintenance purposes. Additional equipment meeting all required specifications is placed on a non-priority list. Servicing of this equipment must not interfere with first priority maintenance. Equipment not meeting all required specifications is neither listed nor serviced.

School patrons, such as the P.T.A., sometimes wish to provide money over and above tax funds for additional equipment or materials or for making other improvements to the school program. Any equipment provided as gifts must be items from the initial or desirable-additional lists and must meet the standards specified for equipment purchased from tax funds. The lists which guide all purchases, whether by tax funds or gift funds, are summarized as follows:

INITIAL LIST	**Elementary School**	**Junior High School**	**Senior High School**
Motion picture projector with 42″ roll-away stand	1	1	1
Filmstrip projector	1	—	—
Filmstrip and slide projector	1	2	2
Record players	6*	4†	4†
Projection screens	3	3	3
18″ paper cutter	1	—	—
Science kit for primary and intermediate grades	1	—	—
Metal filmstrip cabinet	1	1	1
Recorder and 24″ projection stand	—	1	1‡
DESIRABLE-ADDITIONAL LIST			
Recorder	1	3§	3§
Opaque projectors with roll-away stands	2*†	2	2
Microprojector	1*†	1	1
Motion picture projector with roll-away stand	1*†	3	3
Filmstrip projector	4*†	4*‡	4
Record players	2	4	4**
Metal disc cabinet for 90 records	2	—	—
Wall screens	—	each classroom	—
Filmstrip cabinet	—	1	1
Overhead projector	—	—	1

* 1 heavy duty, 5 general purpose
† 2 heavy duty (1 for Phys. Ed. Dept.) and 2 general purpose
‡ High fidelity
§ With stands
*† Plus screen
*‡ Or slide projectors
** 1 high fidelity, 3 general purpose

In the elementary grades, purchase of record players should be based upon this formula—a light-weight player for each first grade classroom, for each two second and third grade classrooms, and for each four fourth, fifth, and sixth grade classrooms. It is recommended that record players be placed on rolling stands.

The central instructional materials office controls all types of instructional materials for the county's schools, including materials in the textbook division, library materials division, and audio-visual materials division. Each of these three divisions is headed by its own supervisor who is responsible to the supervisor of the instructional materials program. Each school has a member of its own faculty serving as an audio-visual representative who assists in operating the local program and who also acts as liaison between his school and the county center. These representatives attend regular monthly meetings in which they are given instruction in various phases of the work, are furnished information not easily transmitted by bulletin, and are provided a variety of materials for their schools after showing that they know how to use them. In this way an attempt is made to maintain in each school a materials center containing all the library and audio-visual materials and equipment commonly used in that school. Each school receives a per capita allocation of funds which is drawn upon by the faculty to purchase needed materials and equipment.

Materials in the central depository are booked for use by teachers in the local schools through their audio-visual representatives. Deliveries and pickups are made to all schools twice a week. The county educational television experiment school also makes use of materials from the depository. Thus, the county center supplements the basic individual school center by serving all schools with materials and equipment which are either too expensive or used too infrequently to warrant their being maintained permanently in individual schools. This equipment includes such items as still and motion picture cameras, flood lights, public address systems, dry mount presses, high-power still projectors, transparency production equipment, and continuous display slide projectors. The center also provides equipment to the supervisory and administrative staff for carrying out their supervisory and/or public relations function.

Each of the three supervisors and the one coordinator in the county center, although concentrating on his own phase of work, consistently promotes a concept of the integrated use of audio-visual, textbooks, and library materials. In promoting this concept, the supervisors and coordinators have found that in-service training in audio-visual methods is the greatest need of teachers because most of the teachers have had inadequate pre-service training in these methods.

The center's supervisory staff cooperates closely with all other departments in the school system, especially with the instructional supervisory staff. Faced with rapid changes in technology as well as in social, economic, and political situations, the center's personnel are constantly alert to ways that will help them meet the challenge of raising the standards of teaching through proper utilization of all types of instructional materials.

The audio-visual functions of the county instructional materials center is carried on by the following staff:

Certified

Materials program supervisor	half time to AV
Audio-Visual supervisor	full time

Non-certified

1 Secretary
3 Booking clerks
1 Distribution clerk
3 Film inspectors

1 Cataloging clerk
1 Preview clerk
2 Mail truck drivers
2 Part-time clerks
Hourly workers

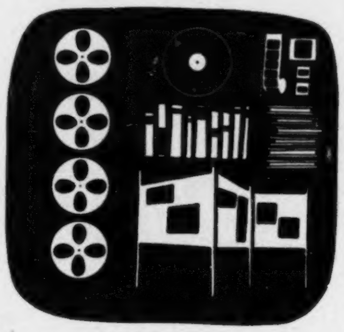
During the 1957-1958 school year, the county spent a total of 91 cents per pupil of allocated tax funds for audio-visual services, exclusive of salaries and equipment for new buildings.

BUDGET SUMMARY

Category	Expenditure	
Special Items		
Binders for filmstrip catalogs	$ 400	
Paper for filmstrip catalog	396	
Paper for supplements	44	$ 840
Subscriptions and Professional Books		175
Repair of Machines		500
Materials		
New films	$ 17,000	
Replacement films (1/5 of library)	68,000	
Rental films	100	
Filmstrips and slides	1,000	
Flat pictures and art reproductions	500	
Objects, models, exhibits	1,000	
Leased films	1,500	
Mounting	500	
Recording tapes	1,000	
Records and transcriptions	500	
Maintenance supplies		
Motion picture projectors (327)	4,905	
Filmstrip projectors (550)	4,125	
Opaque projectors (80)	400	
Overhead projectors (87)	652	
Slide materials	150	
Inspection machines	250	
Replacement reels and cans	1,000	102,582
Equipment		
Replacement (10 years or older)	$ 12,000	
Files and cabinets (center)	600	
Repair parts (inspecion machine)	300	
Opaque projector (center)	275	
Overhead projectors (2-center)	558	
Overhead (supervisors)	279	
Tape recorders (3-supervisors)	525	
Record players (3-supervisors)	282	
Flannelboards (5-supervisors)	100	
Camera (supervisors)	175	
Projection (schools)	15,000	30,094
Grand Total		$ 134,191

CASE STUDY 28

Location: Pacific States
Population of City: 2,435,300
Type: City school system
Student Population: 640,000
Number of Teachers Served: 25,000
Number of Schools Served: 567
AV Program Organized: 27 years
Unusual Expenditures: Television time and personnel



CENTER PROVIDES SIX MILLION DOLLAR AUDIO-VISUAL MATERIALS COLLECTION FOR SCHOOL USE

A six million dollar audio-visual materials collection and an annual budget of over one million dollars is found in this audio-visual center, which is one of the largest in the United States. The film library alone is estimated to be worth three million dollars, while such materials as records, filmstrips, picture sets, art prints, exhibits, and realia, are valued at another three million dollars.

The audio-visual center, with its full-time director and a staff of over 80 people, circulate to schools in excess of 1,100 films daily as well as hundreds of other materials. In addition, it airs 10 radio and 11 television programs a week. A well-developed field trip program and a broad production program—including sets of pictures, filmstrips, and films, both for teacher education and for in-school use by students—are provided by the center. Thousands of sets of study prints are produced, assembled, laminated, and packaged, ready for distribution each year. The center is now color printing its picture sets and is also emphasizing the preparation of teaching kits.

An average of about one new school a week is being constructed in the district. Included in the capital outlay of each new school are sound motion picture projectors, 2" x 2" slide projectors, phonographs, and transcription players, all at the rate of one for each 10 teachers. All schools have lantern slide projectors and tape recorders, and many have opaque projectors and radios for each two teachers. In addition to this, each school has an individual budget which can be used to purchase additional equipment as necessary. For example, an overhead projector is provided each of the teachers in driver education in the city's high schools. Material for room darkening and light control is included in the budget of the educational housing division of the school system rather than in that of the audio-visual center.

The Audio-Visual Representative's Association for junior and senior high schools made a study of the requirements of the job of audio-visual representatives. Its presentation of the findings to the Secondary Administrator's Association resulted in the recommendation to the high school superintendents that one half day each semester be allowed for the representatives to hold a training period with the audio-visual staff. This training period is being continued as a part of the in-service education program. The report also resulted in a number of representatives being given the status of coordinator and in many of the representatives receiving an extra free period for the audio-visual program. The allocation of additional free time and assignment to the position of coordinator, which carries additional salary, is a prerogative of the high school principal.

Audio-visual building representatives are responsible for the ordering of films. A catalog of films available from the center is published by grade level, and films are ordered by means of IBM cards. On receipt of the IBM card, the center books the film and immediately confirms the request to the representative concerned. Building representatives in elementary schools order films each week, and those in high schools order them each month. The teacher orders all other materials directly from catalogs prepared by the audio-visual center. An experiment in decentralization is now being carried out with the installation of 10 individual high school filmstrip libraries having approximately $1,000 worth of filmstrips each. In addition, 300 of the elementary schools have their own extensive collection of materials other than films.

The 1958-1959 budget that follows reflects a per pupil expenditure from tax funds of $1.03 excluding salaries, audio-visual equipment for new schools, additional equipment for individual schools, and room darkening facilities. The per pupil expenditure including salaries is $1.74.

BUDGET SUMMARY

AUDIO-VISUAL BUDGET

Category	**Expenditure**	
Salaries		
Certificated personnel (regular)	$ 87,168	
Certificated personnel (temporary and relief)	45,265	
Non-certificated personnel (regular)	301,244	
Non-certificated personnel (temporary)	13,156	
Non-certificated personnel (overtime)	3,192	$450,025
Materials		
Elementary schools	$190,367	
High schools	126,013	
Junior colleges	19,271	335,651

Other		
Supplies and printing (AV center)	$ 66,700	
All other items	21,375	
Repair of equipment	3,600	
Replacement of equipment	6,575	
Rental of equipment	9,430	
Transportation (mileage)	6,100	
Traveling expense (conventions)	887	114,667
Equipment		
Experimental (schools)	$ 30,893	
Office (AV center)	4,675	35,568
Total Audio-Visual Budget		$935,911
MONIES OTHER THAN AUDIO-VISUAL BUDGET		
Distribution, maintenance, and purchase of equipment in individual school's budgets		
Total Monies Other Than AV Budget		175,000
Grand Total		$1,110,911

RESOURCE BIBLIOGRAPHY

Administering Audio-Visual Services. Carlton W. H. Erickson, The MacMillan Company, New York, 1959. $6.95.

> Analyzes the four essential roles of the director of audio-visual services, namely those of executive, supervisor, audio-visual specialist, and equipment technician. Sound working principles and building suggestions for setting up an effective audio-visual service program.

Audio-Visual Instruction. Department of Audio-Visual Instruction, NEA, 1201 16th Street, N. W., Washington 6, D.C. $4.00 (10 issues per year). Particularly the following issues: (50¢ each)

> October, 1957. Contains articles such as "Patterns for Progress in the AV Program," "Budget Based on Needs," and "Profile Your Program."
> May, 1958. Contains eight articles on the building coordinator.
> September, 1959. "Language Learning Today—45 Questions and Answers."

Audio-Visual Equipment Directory. National Audio-Visual Association, Fairfax Circle, Box 337, Fairfax, Virginia. February, 1959. 5th Edition. $4.75.

> Contains detailed information, specifications, and photographs of more than 500 current models of audio-visual equipment.

The Cooperative Approach to Audio-Visual Programs. Department of Audio-Visual Instruction, NEA, 1201 16th Street, N. W., Washington 6, D.C. March, 1959. $1.50.

> Provides information concerning the establishment, organizational structure, financing, procedures used in selecting and distributing materials, and personnel employed from 104 cooperative audio-visual centers surveyed throughout the United States. Serves as a beginning point for improving services of presently operating AV centers and as a guide for other cooperative programs yet to be undertaken.

Directory of Graduate Programs for the Professional Education of Audio-Visual Supervisors, Directors, and Building Coordinators (with 1959 Supplement). Department of Audio-Visual Instruction, NEA, 1201 16th Street, N. W., Washington 6, D.C. 1955. 50¢.

> Gives helpful information to the administrator recruiting personnel.

Evaluative Criteria for Audio-Visual Instructional Materials Services. Department of Audio-Visual Instruction, NEA, 1201 16th Street, N. W., Washington 6, D.C. 1957. Single copies free.

> Provides a self-evaluation instrument.

Financial Accounting for Local and State School Systems: Standard Receipt and Expenditure Accounts, State Educational Records and Reports Series: Handbook II, Bulletin 1957, No. 4, United States Government Printing Office, Division of Public Documents, Washington 25, D.C. 1956. $1.00.

> Serves to assist school systems in establishing and using comparable receipt, expenditure, and clearing accounts with a common understanding of the definitions of these accounts. Represents two-years of work by five nationwide educational associations and the Office of Education.

Planning Schools for Use of Audio-Visual Materials, No. 1: Classrooms. Department of Audio-Visual Instruction, NEA, 1201 16th Street, N. W., Washington 6, D.C. 1958. $1.50.

Gives detailed information on screen types, light control, devices for classrooms, display facilities, and the like.

Planning Schools for Use of Audio-Visual Materials, No. 3: The Audio-Visual Instructional Materials Center. Department of Audio-Visual Instruction, NEA, 1201 16th Street, N. W., Washington 6, D.C. 1954. $1.00.

Gives detailed information on the services provided and the facilities needed for an effective audio-visual instructional materials center.

The School Administrator and His Audio-Visual Program. 1954 Yearbook. Department of Audio-Visual Instruction, NEA, 1201 16th Street, N. W., Washington 6, D.C. $3.75.

Provides information specifically for school administrators on the characteristics and requirements of an effective audio-visual program.

Television in Education. United States Office of Education, United States Printing Office, Washington 25, D.C. 1956. 55¢.

Discusses what is being done and what can be done through educational television for children and adults.

Dr. Kenneth C. Rugg, Associate Director of the Audio-Visual Center and Associate Professor in the School of Education, Indiana University, passed away October 8, 1959, at his home in Bloomington, Indiana. His untimely death is a great loss professionally to the educational field and personally to his many friends. This publication on which he spent the major portion of his time during his last two or three months is only one of the many tangible and intangible evidences of his dedicated interest in improving the educational facilities and opportunities for boys and girls in the schools of our country.